

**EPA Superfund
Record of Decision:**

**FEED MATERIALS PRODUCTION CENTER (USDOE)
EPA ID: OH6890008976
OU 03
FERNALD, OH
07/22/1994**

Text :

OPERABLE UNIT 3
RECORD OF DECISION
FOR
INTERIM REMEDIAL ACTION

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO

JUNE 1994

U.S. DEPARTMENT OF ENERGY
FERNALD FIELD OFFICE

FINAL

Acknowledgement

The Operable Unit 3 Record of Decision for Interim Remedial Action was prepared with the support of individuals representing expertise and organizations of wide representation. These include Argonne National Laboratory, Fernald Environmental Restoration Corporation (FERMCO), and the U.S. Department of Energy Fernald Field Office. The authors and major contributors for this version of the document are:

Todd Clark
Mike Davis
Christina Elsea
James Forrelli
Kathy Graham
Robert Janke
Cheryl Peterson
Craig Straub
Mike Strimbu
John Throckmorton

RECORD OF DECISION DECLARATION
INTERIM REMEDIAL ACTION FOR OPERABLE UNIT 3

SITE NAME AND LOCATION:
U.S. Department of Energy
Fernald Environmental Management Project - Operable Unit 3
Fernald, Ohio

STATEMENT OF BASIS AND PURPOSE:

This decision document presents the selected interim remedial action for U.S. Department of Energy (DOE) Fernald Environmental Management Project which was chosen in accordance with the Comprehensive Environmental Response and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Environmental Response and Pollution Contingency Plan (NCP).

The proposed interim remedial action for Operable Unit 3 represents a major action for the operable unit and for the site as a whole. While DOE maintains a maintenance program, the former uranium processing support facilities at Operable Unit 3 are, in general, at or beyond their design life and in a state of disrepair. These current conditions indicate an increasing probability of future releases of hazardous substances to the environment due to structural collapse or other failure. DOE and EPA are proceeding toward a decision on the final disposition of Operable Unit 3. As part of the RI/FS process, the decision resulting from this evaluation was made in late 1997.

The decision presented herein for the interim remedial action is based on the administrative record for Operable Unit 3 maintained in accordance with the decision document. The decision was made available for public review and comment. This decision addresses issues raised at the public meeting held on January 5, 1994 and the comment period following the issuance of the Proposed Plan/Environmental Assessment. DOE and EPA have considered all comments received during the public comment period. The Proposed Plan/Environmental Assessment was used in making this decision.

The State of Ohio concurs with the selected remedy.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from Operable Unit 3 are being implemented in the response action selected in this Record of Decision for Operable Unit 3. The action may present a current or potential threat to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY:

This Interim Record of Decision addresses contamination of all Operable Unit 3 structures, including former uranium production process buildings and equipment structures, below-grade and above-grade utilities, and identified ponds. The Environmental Management Project is divided into five operable units, of which Operable Unit 3 is the largest. Under investigation pursuant to the Amended Consent Agreement (EPA and EPA). In addition to these five operable units, a comprehensive site assessment will evaluate the protectiveness of all site-wide remedial response actions.

The interim action selected remedy consists of decontaminating and dismantling structures and related facilities. The bulk of the debris and remediation wastes will be placed into temporary storage; decisions concerning treatment and final disposition of remediation wastes and debris will be addressed and documented in the final Record of Decision for Operable Unit 3 in 1997.

The major components of the selected interim remedy include:

- Decontamination of more than 200 buildings and structures removing loose contamination;
- Dismantlement of the above-ground structures;
- Removal of foundations, storage pads, ponds, basins, and other at and below-grade structures;
- Use of existing facilities or construction and operation of new facilities in or near the former production area;

Off-site disposal at Nevada Test Site of some non-recoverable waste and debris generated by dismantlement;
Off-site recycling of some recyclable material from dismantlement;
Storage of the remaining waste and debris in interim storage facilities until treatment and disposition are selected in the Record of Decision for Operable Unit 3.

STATUTORY DETERMINATIONS:

The selected interim remedial action is protective of human health and the environment, meets Federal and State applicable or relevant and appropriate requirements, and is cost effective. The selected interim remedy best meets the requirements for addressing risks to human health and the environment, accelerating the remediation process, and reducing overall costs associated with Operable Unit 3.

This action does not constitute the final remedy for Operable Unit 3, but provides permanent solutions and remedies that employ treatment to reduce toxicity. The principal element will be addressed by the final remedial action for Operable Unit 3. This action does utilize permanent solutions and alternative treatment (or re recycling and reuse) technologies to the maximum extent practicable, given the nature of the contamination. A subsequent final remedial action is planned to address the remaining contamination in Operable Unit 3. Although this remedy will result temporarily in radiological contamination remaining on site above material free release limits, the final remedial disposition of these remediation wastes and determine the need for future remedial action provides adequate protection of human health and the environment. This is an interim remedial action ROD, review of this site and of this action and EPA develop final remedial alternatives for Operable Unit 3.

-----	-----
Acting Deputy Assistant Secretary for Environmental Management U.S. Department of Energy	Date
-----	-----
Regional Administrator U.S. Environmental Protection Agency, Region V	Date

OPERABLE UNIT 3

TABLE OF CONTENTS

SECTION	
DECLARATION	
TABLE OF CONTENTS	
NOTATION	
1.0 SITE NAME, LOCATION, AND DESCRIPTION	
2.0 SITE HISTORY AND ENFORCEMENT ACTIVITIES	
3.0 HIGHLIGHTS OF COMMUNITY PARTICIPATION	

4.0	SCOPE AND ROLE OF OPERABLE UNIT	
5.0	SUMMARY OF SITE CHARACTERISTICS	
5.1	Potential Contaminant Pathways and Exposure Routes.....	
5.2	Radiological Contamination	
5.3	Chemical Contamination	
5.4	Hazardous Waste Management Units	
5.5	Mixed Waste	
6.0	SUMMARY OF SITE RISKS	
7.0	DESCRIPTION OF ALTERNATIVES	
7.1	Alternative 1 -- No Interim Action	
7.2	Alternative 2 -- Decontaminate Surfaces Only	
7.3	Alternative 3 -- Decontaminate and Dismantle	
8.0	SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES.....	
8.1	Overall Protection of Human Health and the Environment.....	
8.2	Compliance with Applicable or Relevant and Appropriate Requirem	
8.3	Long-Term Effectiveness and Permanence	
8.4	Short-Term Effectiveness	
8.5	Reduction of Toxicity, Mobility, or Volume Through Treatment...	
8.6	Implementability.....	
8.7	Cost	
8.8	State Acceptance	
8.9	Community Acceptance	

OU3 Decision Summary (Final)

9.0	SELECTED REMEDY	
10.0	STATUTORY DETERMINATIONS	
10.1	Protection of Human Health and the Environment	
10.2	Compliance with ARARs	
10.2.1	Contaminant-, Location-, and Action-Specific Requirement	
10.2.2	Other Requirements	
10.3	Cost-effectiveness	
10.4	Utilization of Permanent Solutions and Alternative Treatment or Resource Recovery Technologies to the Maximum Extent Pract	
10.5	Preference for Treatment as a Principal Element	
10.6	Review of the Interim Remedial Action	
11.0	COMMITMENT FOR FURTHER ANALYSIS AND SELECTION OF LONG-TERM RESPONSE ACTION	
12.0	DOCUMENTATION OF SIGNIFICANT CHANGES	
13.0	REFERENCES	

APPENDICES

Appendix A	Responiveness Summary	
Appendix B	Written and Oral Comments.....	
Appendix C	Administrative Record index	

LIST OF FIGURES

1-1	Location of FEMP Facility
1-2	FEMP Site Perspective
8-1	Comparison of Schedules for Alternatives 1, 2, and 3

LIST OF TABLES

5-1	Total Volume of OU3 Materials
7-1	Potential Decontamination Technologies
7-2	Interval Period Debris Bulk Volume Estimates.....
8-1	OU3 Remediation Cost Comparison.....
9-1	Summary of Cost Estimate for Implementing the Selected Remedy

OU3 Decision Summary (Final)

NOTATION

Abbreviations, Acronyms, and Initials

ADM	Action Description Memorandum
AEC	Atomic Energy Commission
ALARA	as low as reasonably achievable
ARAR(s)	applicable or relevant and appropriate requirement(s)
CERCLA	Comprehensive Environmental Response, Compensation, and L 1980
CFR	Code of Federal Regulations
CSF	central storage facility
DOE	United States Department of Energy
DOT	United States Department of Transportation
EE/CA	engineering evaluation/cost analysis
EIS	environmental impact statement
EPA	United States Environmental Protection Agency
FEMP	Fernald Environmental Management Project
FFCA	Federal Facilities Compliance Agreement
FMPC	Feed Materials Production Center
FONSI	finding of no significant impact
FR	Federal Register
FRESH	Fernald Residents for Environmental Safety & Health
FS	feasibility study
HVAC	heating, ventilating, and air conditioning
HWMU	hazardous waste management unit
IROD	Record of Decision for Interim Remedial Action
MCL(s)	maximum contaminant level(s)
MCLG(s)	maximum contaminant level goal(s)

NCP	National Oil and Hazardous Substances Pollution Contingen 40 CFR Part 300
NCRP	National Council of Radiation Protection and Measurements
NEPA	National Environmental Policy Act
NTS	Nevada Test Site
O&M	operation and maintenance
OAC	Ohio Administrative Code
OEPA	Ohio Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
OU3	Operable Unit 3
OU4	Operable Unit 4
OU5	Operable Unit 5

OU3 Decision Summary (Final)

PCB(s)	polychlorinated biphenyl(s)
PEIC	Public Environmental Information Center
RCRA	Resource Conservation and Recovery Act
RD/RA	Remedial Design/Remedial Action
RI	remedial investigation
RI/FS	remedial investigation and feasibility study
ROD	Record of Decision
S.R.	State Route
SARA	Superfund Amendments and Reauthorization Act of 1986
SBDC	Small Business Development Center
STEP	Science, Technology, Environment, and the Public
SVOC(s)	semivolatile organic compound(s)
TBC	to be considered
TSS	tension support structure
USC	United States Code
VOC(s)	volatile organic compounds(s)

OU3 Decision Summary (Final)

1.0 SITE NAME, LOCATION, AND DESCRIPTION

The Fernald Environmental Management Project (FEMP) or "the site" is located on a 1,050-acre site in a rural agricultural area about 18 miles northwest of Ohio (Figure 1-1). The site is near the villages of Fernald, New Baltimore, and Shandon, Ohio, located west and south of Ohio State Routes (S.R.) 12 and 124 respectively. The street address of the Fernald site is: 7400 Willey Road, Fernald, Ohio 450030.

The FEMP is a government-owned, contractor-operated federal facility that produces high-purity uranium metal products for the U.S. Department of Energy (DOE) and predecessor agencies during the period 1952-1989. Thorium was produced on a smaller scale, and still is stored on the site. Production activities were

the production mission of the facility was formally ended in 1991.

Approximately 200 buildings and structures are located at the site and are in the scope of Operable Unit 3 (OU3). Most of these structures are located in the Production Area, which occupies about 136 acres near the center of the Facility (Figure 1-2). Most buildings on-site are generally steel frame structure concrete block structures, or pre-engineered facilities with metal siding. The tallest building on-site is approximately 100 feet high and the tallest Water Storage Tank, is about 265 feet high.

Most facilities and structures rest on a relatively flat plain about 580 feet above sea level. The elevation slopes slightly toward Paddys Run, a small inlet on the west side of the site. Natural drainage at the FEMP generally flows from the exception of the extreme northeast corner, which drains east toward the River.

A portion of the FEMP property along the north-south corridor of Paddys Run site lies within the 100- and 500-year floodplain. On-site surface water in Paddys Run and its unnamed tributaries and total approximately 8.9 acres of site-wide wetlands delineation indicate a total of 35.9 acres of freshwater site. The Great Miami Aquifer is the principal aquifer within the FEMP and has been designated a sole-source aquifer under the provisions of the Safe Drinking Water Act.

The land adjacent to the FEMP is primarily devoted to open land use such as agriculture and recreation. There is some commercial activity adjacent to the site including a company and several nursery suppliers. However, the majority of commercial activity is generally restricted to the village of Ross, approximately 2 miles north along S.R. 128 just south of Ross. Industrial usage is concentrated in the FEMP, along Paddys Run Road, in Fernald, and in small industrial parts on Willey Road and New Haven Road. Open acreage on the FEMP is currently used by local dairies for livestock grazing, but there are no areas within the Facility

As defined by the Amended Consent Agreement (EPA 1991a) and used in this Remedial Action, the term "site" refers to all areas within the property and any other areas that received or potentially received hazardous substance constituents. "Off-site" refers to all areas not included in this definition.

OU3 Decision Summary (Final)

OU3 Decision Summary (Final)

OU3 Decision Summary (Final)

considered to be prime farmland under the Farmland Protection Act of 1955.

Concentrations of residential units are situated northeast of FEMP in Ross, Ohio. Concentrations of residential units are situated southeast of the FEMP in a trailer park adjacent to the intersection of

128. Other residences are scattered around the area, generally in asso farmsteads. An estimated 23,000 residents live within a 5-mile radius

2.0 SITE HISTORY AND ENFORCEMENT ACTIVITIES

The Fernald site was constructed in the early 1950s to produce mater the nation's nuclear weapons program. The original Fernald project was accelerated schedule by the Atomic Energy Commission (AEC) with the aid Corps of Engineers. The site was selected in 1950, and site preparation began in May 1951. Construction of the main facilities (including ore r hydrofluorination, hexafluoride reduction, reduction and casting, metals products, pilot plant, recovery, laboratory, boiler plant, and administr three years, and operation began in May 1954.

This facility produced high-grade uranium metal used for plutonium p government reactors at Richland, Washington, and Aiken, South Carolina. processed, but on a smaller scale. The site produced uranium and other 37 years.

Production activities were stopped in 1989, and the production missi was formally ended in 1991. The Feed Materials Production Center (FMPC) on the National Priorities List in 1989. Subsequently the site was rena reflecting its new mission of environmental restoration. This current m with the requirements of the Comprehensive Environmental Response, Compe Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments a Reauthorization Act of 1986 (SARA), here after jointly referred to as CE National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

The CERCLA activities for the FEMP are defined by several agreements the primary governing regulations, including the following:

In 1986, DOE entered into a Federal Facilities Compliance Agreeme (FFCA) with the U.S. Environmental Protection Agency (EPA) that p for a Remedial Investigation/Feasibility Study (RI/FS) and remedi the site.

In 1988, DOE entered into a Consent Decree with the State of Ohio provided for management of water pollution and hazardous wastes. was amended by the Stipulated Amendment to the Consent Decree, in 1993.

2Throughout this Record of Decision for Interim Remedial Action, the acr though it was known as the FMPC when in operation and also on the Nation

OU3 Decision Summary (Final)

In 1990, DOE and EPA entered into a Consent Agreement that amende 1986 FFCA.

In 1991, the 1990 Consent Agreement was amended. The Amended Consent Agreement (EPA 1991 a) defined five distinct operable uni site: Operable Unit 1, the Waste Pit Area (waste pits 1-6, clear berms, liners, and soil within the operable unit boundary); Opera Other Waste Units (flyash piles, other south field disposal areas ponds, solid waste landfill, berms, liners, and soil within the o

boundary); Operable Unit 3, the Production Area; Operable Unit 4, (silos 1-4, berms, decant tank system, and soil within the operable boundary); Operable Unit 5, Environmental Media (groundwater, surface water, soil not included in the definitions of Operable Units 1-4 flora and fauna). A Comprehensive Site-Wide Operable Unit was also defined in the Amended Consent Agreement. In addition, the Amended Consent Agreement defined several EPA-approved removal actions which represented major projects within OU3 and which will be coordinated with the selected remedy from this Record of Decision (ROD).

This Record of Decision for Interim Remedial Action (subsequently referred to as IROD) addresses OU3, which consists of the former Production Area, production facilities and equipment, and all support facilities. It incorporates all grade improvements, including, but not limited to: all structures, equipment tanks, solid waste, waste products, thorium, effluent lines, K-65 transfer treatment facilities, fire training facilities, scrap metal and soil pile.

The former Production Area occupies about 136 acres near the center of the site and contains many buildings, scrap metal piles, containerized materials, storage lot, roads, railroad tracks, above-ground and underground tanks, utilities. Several impoundments, ponds, and basins are also included. OU3 does not include the soil and groundwater under the various facilities. These are as important as potential pathways between sources of contamination in the area and the various potential receptors. Soil and groundwater remediation will be conducted within Operable Unit 5 (OU5).

3.0 HIGHLIGHTS OF COMMUNITY PARTICIPATION

At the FEMP, selection of the interim remedial action for OU3 was in accordance with the requirements of CERCLA. The Proposed Plan/Environmental Assessment for Interim Remedial Action (DOE 1993c) was developed and submitted to the public for review and comment on December 8, 1993. A notice of availability for a public comment period was published on December 8, 1993 in the legal section of the Enquirer, Hamilton Journal-News, and Harrison Press newspapers. In a larger segment of the public, display advertisements were run in the same newspapers on December 15, 1993 announcing the public comment period and the public meeting on January 5, 1994. Also on December 15, 1993 an announcement of the public comment period and a fact sheet were mailed to approximately 1,000 stakeholders within a radius of the site as well as other key stakeholders and the media. An

OU3 Decision Summary (Final)

An advertisement for the public meeting was published in the Hamilton Journal-News, Harrison Press on December 29, 1993 and in the Cincinnati Enquirer on January 5, 1994.

The Proposed Plan/Environmental Assessment, along with other documents in the administrative record, have been made available for public review at the Information Center, JAMTEK Building, 10845 Hamilton-Cleves Highway, Harrison, Ohio 45030. An additional location of the administrative record is also at the main Region 5, Waste Management Division Records Center, 77 West Jackson Boulevard, Chicago, Illinois 60604.

During the public meeting on January 5, 1994, the Proposed Plan/Environmental Assessment was discussed in detail. The format for the meeting included a question and answer session, and a formal public comment session. During the public's request, DOE extended the comment period for another 30 days to January 8, 1994. Representatives from DOE and Ohio EPA (OEPA) answered questions

to comments about the remedial alternatives under consideration. During written and oral comments were received and are attached as Appendix B o transcript from this public meeting is contained in the administrative r

Judging from the comments made during the public meeting, residents additional explanation about the purpose of the Proposed Plan/Environmen well as more information about the preferred alternative. Issues of par public were material transportation, interim storage facilities, air mon of the requirements of CERCLA and the National Environmental Policy Act more information about the regulatory process, DOE held a roundtable mee 1994 to discuss the CERCLA/NEPA integration approach for the site and OU

Based on the written and oral comments received during the 60-day pu period, a responsiveness summary was developed and is attached as Append IROD. Copies of the written and oral comments are contained in Appendix document presents the selected remedial action for the FEMP chosen in ac CERCLA, and, to the extent practicable, the NCP. The decision for this administrative record; a listing of the administrative record for this d Appendix C.

4.0 SCOPE AND ROLE OF OPERABLE UNIT

The Amended Consent Agreement defined five operable units to organiz evaluation and selection of appropriate actions to remediate the FEMP. strategy for cleanup is the remediation of each individual operable unit among the operable units with respect to treatment or disposition option The proposed interim remedial action for OU3 represents a major portion action for the operable unit and for the site as a whole. The OU3 RI/FS remedial action ROD will contribute the remaining portion (treatment and generated by the interim remedial action) to the overall OU3 cleanup str

Remedial actions for each operable unit will be coordinated to achie reduction for the FEMP. The selected OU3 interim remedial action will b planned future actions for OU3 and the entire site, and will not preclud

OU3 Decision Summary (Final)

the expected final remedy. The interim and final remedial actions for O other operable unit remedial and removal actions will constitute the ove FEMP.

Many buildings, equipment and other facilities contained within OU3 radiological and other hazardous substances that exceed certain standard protecting human health and the environment. The presence of these conta in ongoing exposures to workers and presents an unacceptable threat to o through the potential for release.

While DOE maintains an active maintenance program, the former uraniu support facilities contained within OU3 are, in general, at or beyond th state of advancing deterioration. These current conditions indicate an of future releases of hazardous substances to the environment due to str other failure mechanisms. While the DOE and EPA are proceeding toward a final disposition of these structures as part of the OU3 RI/FS process, from this effort will not likely occur until late 1997.

DOE, as the lead agency for the FEMP, has the responsibility to redu to human health and the environment. Therefore, DOE is implementing an action in accordance with CERCLA and the NCP to accelerate the cleanup p

by eliminating potential sources of contaminant releases to the environment. The interim remedy is the decontamination and dismantlement of contaminated equipment, and facilities within OU3. Included within the scope of this is removal of all OU3 facilities, including former uranium processing building support structures, above-, at-, and below-grade utilities, and identification

This action is considered reasonable due to: (1) the early opportunity for cleanup actions to address the advanced state of facility deterioration for contaminant release; (2) the resulting reduced exposures to site workers; (3) substantial cost savings to the public from reduced maintenance costs; and (4) a future land use as yet identified for the OU3 facilities. Therefore, DOE's selection of these facilities to be a prudent measure to ensure the protection of the environment.

An Interim Remedial Action Remedial Design/Remedial Action (RD/RA) Work Plan will be issued subsequent to the IROD, to provide more details on how facilities will be decontaminated and dismantled, consistent with the selected interim remedial action. Remediation plans associated with current Removal No. 13 (Plant 1 Ore Storage Building) and Removal No. 19 (Plant 7 Dismantling) will form a basis to develop and support the Interim Remedial Action RD/RA Work Plan design. Before implementation of this interim remedial action, it is anticipated that both of these removal actions will be complete or nearly complete. Lessons learned from the design and implementation of these removal actions will be incorporated into the Interim Remedial Action RD/RA Work Plan and subsequent actions.

The selected interim remedial action will be coordinated and integrated with other approved removal actions or newly identified removal actions. It is anticipated that removal actions will be completed before beginning the interim remedial action. Exceptions are the currently ongoing removal actions: Removal of Waste Storage Building (Removal No. 9), Safe Shutdown (Removal No. 12), Improved Storage of Soil and Debris (Removal No. 17), and Asbestos Abatement (Removal No. 26).

OU3 Decision Summary (Final)

These removal actions are in nature and represent actions being applied to the site as a whole. Each removal action is connected to the interim remedial action and requires coordination to ensure effective implementation.

Contaminated environmental media, including soils and groundwater in the area underlying the OU3 facilities, are being addressed within OU5, which includes all environmental media on a site-wide basis. Interfaces between OU3 and OU5 will be required for removal of above-, at-, and below-grade facilities in coordination with environmental media. OU3 interfaces with OUs 1, 2, and 4 are physically established boundaries around each operable unit; however, remedial action planning for all operable units are coordinated to make the best use of available resources and limited space.

The effect of this selected interim remedial action will be to isolate and control contamination concerning decontamination and dismantlement activities from those concerning the disposition of wastes and potentially allow decontamination and dismantlement of structures and facilities to begin four years ahead of the current Remedial Action schedule. Since the interim action will remove the buildings and structures, decontamination and dismantlement, the final remedial action ROD will not include technologies or process options. The OU3 RI/FS will focus upon the evaluation of treatment technologies, and methods and locations for the final disposition of remediation wastes. Through implementation of this interim remedial action decision, all of OU3 will be remediated. For this document, "waste" is defined as any material generated as a result of the CERCLA in

and is not meant to necessarily indicate the applicability of the regula material.

In parallel with the completion of the OU3 RI Report, final treatment and options will be considered in the OU3 FS Report. Upon issuing the final ROD for treatment and disposition, materials generated during the interi be controlled and managed to meet the requirements of the final remedial to provide a total remediation approach. Discussion of this unified rem provided within the RD/RA Work Plan issued subsequent to the final remed

To support this decision, DOE developed a Proposed Plan/Environmental Ass which evaluated remedial alternatives and documented the preferred alter remedial action. To provide a NEPA review for the action, the Proposed Assessment was written to incorporate NEPA values at the level of an Env Assessment. Based on the analyses in the Proposed Plan/Environmental As has determined that the selected interim remedial action is not a major significantly affecting the quality of the human environment, within the Therefore, the preparation of an Environmental Impact Statement is not n issue a finding of no significant impact (FONSI).

5.0 SUMMARY OF SITE CHARACTERISTICS

The processes and operations within the former Production Area at the FEM the use of a variety of source feed materials and other radioactive and

OU3 Decision Summary (Final)

both production and secondary operations. The production operations als variety of waste materials containing both radiological and chemical con operations at the FEMP, material handling procedures resulted in chemica contamination within many OU3 facilities. As as result, these facilitie and future sources of environmental contamination.

Table 5-1 presents the volumes of materials estimated to be within t All of the materials have been grouped into the major categories listed second column gives the estimated volumes of materials provided in the F Information Manual (DOE 1 1993a) and portrays in-place volumes as the ma current state. The third column represents estimated bulking factors fr Plan/Environmental Assessment (DOE 1993c) that would supply to in-place dismantlement actions occur. This results in a total estimated bulked v the fourth column. The bulking factors represent the anticipated increa materials as a result of the dismantlement activities.

Table 5-1 Total Volume of OU3 Materials

Media	In-Place Volume (cubic Yards)	Bulking Percent (%)	Total Bu Volume (c
Concrete	88,000	130	114,00
Cement Block	11,000	130	14,30
Steel	2,100	300	6,30
Transite	1,500	120	1,80

Other Metal	5,600	200	11,20
Soil/Rubble	36,000	100	36,00
Asphalt	16,500	130	21,50
Other	110,000	200	220,00

Total	270,700		425,10

The following subsections present an overview of contaminant pathway routes and existing information on chemical, radiological, and mixed waste associated with the OU3 facilities. This summary is based upon data from the RI/FS Work Plan Addendum (DOE 1993d) wherein additional information is a

5.1 Potential Contaminant Pathways and Exposure Routes

From the sources of contamination in OU3, contaminants could potentially follow numerous pathways to reach potential receptors. Each pathway that potentially contributes significantly to overall risks if OU3 remediation is not undertaken.

OU3 Decision Summary (Final)

Air: Removable contamination from building surfaces, equipment, containerized waste, piles of waste and contaminated soils could be suspended into the air as particulates by wind action or by human activity. Exposure routes for the air pathway could include inhalation, dermal contact, and ingestion.

Groundwater: Material from OU3 components could cause groundwater contamination through direct leakage from buildings and structures to perched groundwater and leaching of contaminants from soils surrounding buildings and structures. Exposure routes for the groundwater pathway could include ingestion, inhalation and dermal contact during showering, human consumption of livestock and crops that used groundwater, and dermal contact during incidental activities.

Surface Water and Sediments: Surface waters and associated sediments of Paddys Run and its tributaries could be contaminated by runoff from leaks or spills, the erosion of contaminants from soil piles, and the deposition of contaminated particulates originating from building and storage pad surfaces. Exposure routes for this pathway could include human consumption of contaminated water, dermal contact during recreational activities (e.g., swimming), incidental sediment ingestion, radiation exposure, consumption of livestock watered with contaminated surface waters, consumption of crops irrigated with contaminated surface waters, and consumption of fish from contaminated surface waters.

Soil: Soils represent a potential exposure pathway to human receptors through incidental ingestion, pica, dermal contact, and direct radiation. However, soils are not considered a primary source of contamination in OU3 because environmental media are addressed under OU5.

Direct Contact: Direct contact allows the direct transfer of contaminants from waste materials or contaminated components to a receptor. This takes place through direct irradiation from contaminated building materials.

or direct exposure to contaminated components or wastes by dermal contact or ingestion.

5.2 Radiological Contamination

Historical information and process knowledge indicate that the primary contaminants in OU3 are uranium (isotopes 234, 235, 236, 238, and, to a lesser extent, 233), thorium (isotopes 228, 230, and 232), radium (isotopes 226 and 228 associated daughters, including isotopes of lead and polonium). Additionally, OU3, which have been identified through analysis, include isotopes of neptunium, technetium, strontium, cesium, and americium.

Through the ongoing radiation protection program at the FEMP, radiological data is available. As part of this program, the following radiological data has been collected:

OU3 Decision Summary (Final)

Radiation smear and direct measurements for many individual OU3 structures,
Smear and direct survey information on some abandoned in-place equipment,
Radon-222 and radon-220 monitoring, and
Airborne alpha and beta radiation concentrations.

It should be noted that although some radiological information is available for the structures and facilities, not all of this radiological information is for a structure or facility within OU3, and speciation of radioactive isotopes is not available at the current time.

5.3 Chemical Contamination

Current data on chemical contamination within OU3 is based on chemical process knowledge for the 37 years of operations. This data is largely complete and is presented in the OU3 RI/FS Work Plan Addendum. The information in Appendix B of the OU3 RI/FS Work Plan Addendum represents potential contaminants that may be present in the facilities. Additional characterization of OU3 for chemical contamination data will be gathered as part of ongoing RI activities. This data will be integrated with the remedial design activities to implement the selected remedial action.

Several classes of chemical or contaminant groups of potential concern may exist in OU3. Principal chemical contaminant groups of concern are inorganics, volatile organic compounds (VOCs), semivolatile organic compounds, asbestos, polychlorinated biphenyls (PCBs), and other materials such as lubricating and heat treating. Based on the materials and relative volume used at the site during operations, it is expected that radiological contamination is a more significant source of carcinogenic risk than chemical contaminants.

Field characterization activities are scheduled to precede the remedial action. The results from the field characterization will be used to develop and implement the action for each component. Data will be used to develop health and safety requirements and to design monitoring, decontamination, dismantlement, transportation, and storage systems. Use of appropriate field monitoring equipment is being employed during implementation of the selected interim remedial action to monitor exposures.

5.4 Hazardous Waste Management Units

The Resource Conservation and Recovery Act (RCRA) program at the FEM identifies a total of 43 Hazardous Waste Management Units (HWMUs) (36 in active units for storage of hazardous waste during remediation) within O strategy for these HWMUs is currently being negotiated with OEPA. The 1 negotiations would employ three different closure strategies. Clean clo be complete for 17 of the inactive units before the interim section fiel that unit/component. The remaining 19 inactive units would be remediate CERCLA/RCRA integration process associated with the selected interim rem is currently being developed. Each of the seven active units would be c

OU3 Decision Summary (Final)

after hazardous or mixed waste storage is no longer required of these un intent to close has been provided to OEPA.

5.5 Mixed Waste

Mixed wastes are hazardous (RCRA) wastes that also include radiologi contaminants. Radiological contamination appears to be relatively wides many structures in OU3. Based on past materials handling practices and contaminants, some of the materials and wastes associated with OU3 facil the category of mixed waste. Mixed wastes resulting from the selected i action will be managed in accordance with RCRA requirements. The volume included in this category are currently uncertain.

6.0 SUMMARY OF SITE RISKS

OU3 consists of over 200 buildings and structures, including the pro facilities at the FEMP, a large quantity of drummed inventory and waste, soil and scrap metal. In particular, the process facilities are complex metallurgical process plants that contain equipment, process lines, dust tanks, sumps, and dikes. OU3 contains no environmental media except for excavated soil piles; the contaminated media in OU3 are generally the co contained in the structures. Although DOE maintains an active mainten facilities in OU3 are generally at or beyond their design lives and in a deterioration. For example, long-term exposure to nitric acid fumes and uranium digestion process contained in Plant 2/3 has eroded the building Additionally, areas of Plant 6 and the thorium storage buildings (64 and deteriorated state and provide insufficient long-term protection of thei elements. Various sumps contain contaminants that could potentially be groundwater. Significant maintenance and renovation would be required i to maintain the integrity of the structures, without guarantee of contam

On the basis of process knowledge, the most significant potential co are expected to be uranium and thorium and their decay products, along w metals, solvents, PCBs, and asbestos. These contaminants are expected t primarily in the former processing and maintenance buildings and in wast asbestos occurs in most of the original buildings at the site.

Under current conditions, the primary routes by which individuals co OU3 contaminants are direct radiation, inhalation, and absorption of the in the OU3 structures. Small quantities of contaminants, such as uraniu released to the air and discharged to surface water from sources in the a potential exists for releases of contaminants to groundwater from buil piping, or other contaminated equipment.

Exposures of on-site workers and site visitors to contaminants could

the exposure of any trespassers in OU3. However, because DOE controls are in place at this time, trespassers are not expected to have access to contaminate site workers currently have the highest likelihood of significant exposure.

OU3 Decision Summary (Final)

contaminants. Radiological doses to individuals currently working on-site are well below standards and actual individual doses are relatively low compared to those

Nearby off-site residents and users of foodstuffs produced near the site are exposed to contaminants released from OU3. However, risks associated with OU3 contaminants are currently low for such off-site residents. It is estimated that a hypothetical maximally exposed off-site individual currently receives a dose from the FEMP (exclusive of the dose received from radon, which originates from non-OU3 sources) of about 1 millirem as referenced in the 1992 Site Report (DOE 1993e). This dose corresponds to an excess risk of about 6 in 100,000 that a hypothetical individual will develop cancer as a result of the exposure. This is compared to the natural radiation exposure received by an individual flying in an airplane for approximately two hours. Because OU3 contributes only a fraction of the annual dose from the site as a whole, this estimate provides an upper bound on the carcinogenic risk to an off-site individual that results from radiologic exposure from OU3. This is a small fraction of the dose received by the individual as compared to natural background radiation.

Carcinogenic risks associated with exposures to chemicals from or within the site are expected to be less than the risks associated with the exposures to radon on the basis of the materials utilized at the site. Non-carcinogenic effects from chemical contaminants from or within OU3 have not been quantified but are expected to be low. In its current state, OU3 poses no significant threat to humans because access controls of contaminated areas are maintained and facilities and systems are maintained.

However, significant release of contaminants and resulting exposures could occur if no remediation of OU3 is undertaken, even if access controls are maintained. A major concern for OU3 is the potential for increased future risks as structures deteriorate, increasing the potential for the release of contaminants. Actual or threatened releases of hazardous substances from OU3 in the future may present an imminent and substantial danger to public health, welfare, or the environment.

7.0 DESCRIPTION OF ALTERNATIVES

Interim remedial action alternatives were developed in accordance with the requirements of 40 CFR 300) and EPA's Guidance for Conducting RI/FS Under CERCLA (EPA 1988). The "No Action" alternative was considered in the Proposed Plan/Environmental Assessment. As represented an "as is" condition for all facilities in OU3 with no further action. Under that alternative, none of the approved removal actions, other future or maintenance activities would have been implemented. All facilities were abandoned and allowed to deteriorate further, with resulting increased potential for release of radioactive and other contaminants to the environment. Because no action alternative would not meet the NCP threshold criterion for overall protection of human health, the No Action Alternative was screened from further consideration. The following subsections identify the interim remedial action alternatives.

OU3 Decision Summary (Final)

7.1 Alternative 1 -- No Interim Action

The "No Interim Action" Alternative involves the continuation of all current programs. No acceleration of site remediation would occur under this alternative assuming that existing and approved removal actions and site programs would continue. As required, additional removal actions might minimize potential risks. Other than ongoing maintenance activities and actions, no further containment, stabilization, or removal of contaminants would be included in the scope of this alternative. Final remedial action would be determined in the final remedial action ROD, presently scheduled for draft to EPA in April 1997. This alternative would not incur additional costs above the baseline for cost comparison.

7.2 Alternative 2 -- Decontaminate Surfaces Only

Alternative 2 involves in-situ gross decontamination of interior and exterior of OU3 above-grade structures and disposition of generated wastes through cleanup programs. In-situ decontamination of facilities within OU3 would be pursued to prevent releases of contaminants to the environment. This alternative would reduce contamination levels, thereby reducing direct exposure potential, as well as sources for wind-borne or water-borne contamination. All previously approved maintenance activities, and presently approved removal actions would continue under this alternative. As required, additional removal actions might be proposed to further minimize potential risks.

The methods that would be used for removing gross surface contaminants depend on the type and level of contamination present and the matrix on which the contaminants are located (e.g., concrete block, transite, steel, etc.). Surface decontamination techniques to be selected from proven and effective techniques. Surface decontamination would be used to remove contamination from interior and exterior walls, floors, structural members. Vacuum systems and/or directed air flow would be used to reduce the potential for contaminant release and migration during the decontamination activities. Table 7-1 lists a variety of proven, potential decontamination techniques that would be effective for use with the implementation of the action. The ultimate decontamination technologies would not be limited to those listed. New decontamination technologies developed from the OU3 RI/FS Treatability Studies would be included in the process as appropriate.

Secondary liquid and/or solid waste streams generated during implementation of Alternative 2 would be treated to the extent feasible using existing site treatment facilities fully compliant with applicable or relevant and appropriate requirements considered (TBC) criteria identified in Section 10.2 to facilitate the action. The action is timely and protective of human health and the environment. All activities would be in compliance with health and safety regulations and will follow the principles of ALARA (as low as reasonably achievable). Decontamination actions within HWMU are separated from actions in non-HWMU areas to minimize generating mixed waste.

After completion of this action, substantial removable contamination would remain under, and around equipment, corners, roofs, utilities, and piping. An additional decontamination procedure would then be necessary during dismantlement activities.

OU3 Decision Summary (Final)

Under the final remedial action ROD. Additionally, after decontamination the structures would remain in their current state of structural deterioration with ongoing monitoring of potentially contaminating areas previously decontaminated.

It is estimated that about 900,000 person-hours would be required to Alternative 2. Using an assumption for reasonable funding levels, it is decontamination activities would take about 4 years and utilize approxim workers. This alternative would cost an estimated \$82 million (in 1994

7.3 Alternative 3 -- Decontaminate and Dismantle

Alternative 3 primarily involves the decontamination and dismantlement facilities and structures and the interim storage of the resulting waste action ROD. Implementing Alternative 3 would effectively separate remed concerning the decontamination and dismantlement of OU3 structures from concerning material and/or waste treatment and disposition. Generally, treatment and disposition would be addressed by the ongoing RI/FS process provided in the final remedial action ROD for OU3. All activities perform compliance with ARARs and health and safety regulations and will follow ALARA (as low as reasonably achievable).

Generally before implementation of the interim action within a facility actions will have been completed. The Safe Shutdown removal action, for probably have completed its assigned actions, the existing drummed waste will have been removed previously (either dispositioned off-site or relocated).

TABLE 7-1 Potential Decontamination Technologies

Technology	Media	Secondary
Brushing, scraping, wiping	Any solid	Dry residue
Scrubbing (manual or mechanical)	Concrete, metal, plastic, transite	Residue
Scabbling	Concrete	Concrete
Vacuuming	Any	Collected
Pressurized steam	Concrete, metal	Wet residue
Strippable coating	Any surface	Coating
Water jet (high or low pressure)	Concrete, metal, plastic, transite	Contaminant
Shot blasting	Metals, concrete	Shot and
Grit blasting	Metals, concrete	Grit and
CO2 pellet blasting	Concrete, metals, plastic, painted surfaces	Residue
Chemical foams, gels, pastes	Metals	Foams, gels removed

OU3 Decision Summary (Final)

facilities), and, where appropriate, friable asbestos will have been removed.

Asbestos Abatement removal action. Facilities that are being used for wastes will likely be remediated last unless stored materials within it are dispositioned.

The primary scope of Alternative 3 is removal of gross surface contamination material in structures, dismantlement of structures, and interim storage material/ wastes. Gross surface decontamination for this alternative would use techniques described under Alternative 2. To the extent practical, all recycling and minimize waste generation. In order to facilitate the interim remedial action and prevent constraints due to storage space limitation, quantity of wastes would be shipped off-site to the Nevada Test Site (NTS).

After decontamination, the next step in the sequence of implementing remedial action is the dismantlement of the structures. Most of the facilities for this action are buildings. The remaining various structures include such as utilities, storage pads, roads, railroads, ponds and basins. Because many other structures are unique in terms of construction type and past use, methods would vary with both building/structure type and configuration. Building types are identified as generally representative of buildings at the site.

- Structural steel with transite siding and roofing facilities (for example, 4, 5, 6, and 9);
- Concrete block with built-up or composite roofing (for example, Administration building and Services building);
- Pre-engineered facilities with metal siding and roofing (for example, newer RCRA storage warehouses);
- Wood frame with wood siding and metal roofing structures (for example, the guard houses);
- Tension support structures: and
- Open steel frame structures (for example, the Nitric Acid Recovery building).

Decontamination and dismantlement procedures would be customized to unique features of any structure, as well as specific contaminants identified in ARARs, and HWMUs located within the structure.

The following procedure presents an example applicable to the dismantling of a typical process building. The action would begin by removing yard structure exterior equipment and machinery that could restrict heavy equipment mobilization operations. The surface decontamination process would typically begin off the structure or areas of the structure and applying directed air flow and filtration to control airborne particles. A variety of surface decontamination techniques would then be employed to reduce the potential for generation of airborne contamination during structure dismantlement. The dismantlement process of the facilities typically begin with the removal of asbestos materials followed, generally, by removal of electrical equipment, piping, water lines, gas lines, tanks, heating, ventilation and air conditioning (HVAC) duct work, and electrical lines. Depending on the specific dismantling activities may vary. For instance, the removal of transite siding would proceed from within the building outward. The last steps of the dismantling process would be the removal of the roof and internal structural members.

OU3 Decision Summary (Final)

the removal of any air filtration apparatus and the removal of the roof, internal structural members.

After above-grade decontamination and dismantlement, foundations, slabs, and pads would be decontaminated or stabilized to minimize further soil contamination. Foundations, slabs, pads, and subsurface utilities (pipes, electrical lines) would be scheduled to coincide with OU5 remedial actions involving soil excavation.

Materials resulting from dismantlement of the facilities would be se groups: one would go to interim storage facilities until the final reme the other would be containerized and transported off-site. Materials se off-site would either be recyclable/reusable materials or non-recyclable materials and would be subject to the 10% limitation on the quantity of dispositioned off-site.

Evaluation factors for the determination of which materials are reco or non-recoverable include, but are not limited to, the following: econ available decontamination and/or treatment technologies, volume of secon generated, monitoring capabilities, applicable contamination limits, ava materials, and the availability of disposition options. Materials trans recycled or reused to the maximum extent practical. As stated, opportun resource recovery, recycling, and waste minimization would be factored i process for each activity conducted under the interim remedial action. of being recycled would be dispositioned in accordance with the applicab criteria.

The remaining materials that can not be dispositioned off-site would interim storage until the final remedial action ROD for OU3 is issued. material type, some sorting and packaging might be required for transpor materials to interim storage. For example, asbestos insulation from duc or boxed and structural steel would probably be transported in covered d Materials that cannot be recycled or reused and that have no potential t packaged for final disposition at NTS before being placed in interim sto

Table 7-2 details the estimated volume of materials from Appendix G Plan/ Environmental Assessment (DOE 1993d) to be addressed by this alter interval period before the final remedial action ROD for OU3. These vol estimated quantity of material to be managed through interim storage or

Dust resuspension occurring from material and waste movements on sit minimized by use of the existing paved roadways and the use of dust cont necessary. Loose materials would be packaged and loads would be covered as necessary, to reduce the potential for contaminant release and migrat structural steel, or other materials which do not have high levels of re contamination would likely be stored without additional packaging. Spec requirements for the various types of wastes and materials that would be Alternative 3 are outlined in the Removal Action No. 17 Work Plan, Impro and Debris (DOE 1993b).

OU3 Decision Summary (Final)

Table 7-2 Interval Period Bulk Volume1 Estimates

Media	Stored Volume ų (cubic yards)	Shipped Volume (cubic yards)	Potentia Dispositi
Concrete/Cement Block	1,600	0	N/A
Structural Steel	0	600	Recycl
Miscellaneous Metal	800	2,000	Recycl
Equipment	12,600	8,500	Off-Si
Transite	0	400	Off-Si

Other	0	5,700	Off-Si
Decontamination Residues	1,300	1,300	Off-Si

Total	16,300	18,500	

1 Volume is based on total bulk volume estimates without applying contain
2 Stored volume indicates materials held in interim storage for potential

ROD.
3 The anticipated disposition for each media may change due to re-evaluation
treatment/decontamination
options.

To prevent constraints on the decontamination and dismantlement activities storage space limitations for the resulting construction debris, a limit would be shipped off-site for disposition. A maximum of 10 percent of a generated by implementing Alternative 3 (42,500 cubic yards as calculated) would potentially be shipped for disposition and recycling prior to the decision being determined by the final remedial action ROD for the major. The 10 percent limitation on waste volumes allowed to be dispositioned is 0 percent of the total OU3 volume of remediation wastes generated; this was which would assure that a final disposition decision would not be biased.

Small quantities of non-recoverable and non-recyclable materials destined for dispositioning would be containerized, using strong-tight containers such as (burial volume 4 cubic yards) and/or SeaLand containers (burial volume 0 and shipped off/site by truck for disposition at the NTS. The identification document does not preclude the use of other licensed disposal facilities requirements for these facilities are met. Following NEPA review, these are considered as options for receipt of interim remedial action wastes.

The shipment of wastes would be to the extent practical to facilitate the interim remedial action by ensuring the availability of adequate on-site quantity of non-recoverable/non-recyclable materials estimated to be disposed before the final remedial section ROD is approximately 15,900 cubic yards approximately 650 truck shipments over a 3,300-kilometer trip to the NTS does not preclude the use of rail transport if rail lines become available period.

OU3 Decision Summary (Final)

The proposed tension support structures are designed only for temporary an intended design life of 25 years, and as such cannot be used for long-term intent of building these facilities is twofold: for use as an interim off-site for wastes generated from the action if existing storage space is not available as a staging area to support segregation, packaging, and transportation of disposition. To minimize constructing additional interim storage facilities space within buildings or on the Plant 1 Pad would be utilized for interim to the maximum extent practicable. If storage and staging space is obtained facilities, it would not be necessary to construct all of the planned in

The final decision for material disposal, whether on-site or off-site part of the OU3 final remedial action ROD in 1997, will determine the location of OU3 remediation wastes including materials in interim storage and the A decision for on-site disposition of remediation wastes would preclude storage structures for permanent storage and would require construction

specifically to meet the stringent requirements of permanent disposal. If it is for on-site or off-site disposal, the interim storage structures would be large enough to support staging operations for remediation wastes resulting from these activities. Therefore, the timeframe for use of the structures is dependent on the decision for disposition of the OU3 remediation wastes, which is expected by 1997. Once staging is no longer necessary to support remediation waste activities, the structures would be removed as part of the OU3 interim remedial action and the wastes would be dispositioned as part of the OU3 final remedial action.

If existing storage space is unavailable, the design, siting, procurement and operation of interim storage facilities (approximately five as presently envisioned) would be used to store the demolition debris and secondary remediation wastes from decontamination and dismantlement action. The interim storage facilities envisioned would each be approximately 100 feet wide and 400 feet long and provide approximately 30,000 square feet of usable floor space and approximately 30,000 cubic feet of storage space. These facilities are planned to store wastes generated because the storage space necessary to support the action is not currently available within existing buildings or on the Plant 1 Pad becomes available. To the maximum extent possible, as opposed to construction of new facilities.

Based upon estimated maximum storage capacity needs, five storage facilities are added to the first phase of Removal Action No. 17, the Central Storage Facility presently envisioned. A worst-case interim storage situation would only be generated by the interim remedial action if not dispositioned off-site and if not available in existing facilities. This would result in the construction of new storage facilities. However, it is anticipated that storage space would be available and that a portion of material can be dispositioned off-site resulting in no additional storage facility needs.

To address the public's concern regarding a potential increase in airborne concentrations above natural background levels, stringent engineering controls are applied to ensure the safety of workers and the general public. Comprehensive controls used to minimize releases, the extensive air monitoring program continues to monitor air at both the site perimeter and at nearby locations.

OU3 Decision Summary (Final)

cleanup activities. Mobile air samplers would be used in work areas to ensure that activity is maintained at low levels as a supplement to the existing air monitoring. If airborne concentrations are detected above background levels at nearby locations, contingency measures would be implemented to reduce contaminant emissions. Work could be stopped, exposed areas covered or otherwise controlled, and measures could be increased prior to restarting work to ensure that nearby general public are not exposed to unacceptable human health risks.

Environmental monitoring and ongoing maintenance would be conducted during decontamination and dismantling activities and during the interim storage activities with the CSF. Administrative and engineering controls would be utilized during implementation of the interim remedial action to control airborne emissions and maintain a safe work environment.

Using an assumption for reasonable funding levels, preliminary estimates indicate that the decontamination and dismantlement section would take approximately 160 full-time workers to perform the dismantlement section and other miscellaneous activities along with approximately 60 workers supplying the interim storage efforts. It is estimated that about 6 million dollars will be required to implement Alternative 3, not including efforts related to

and maintenance. The cost of this alternative, in 1994 dollars, is estimated and includes the decontamination and dismantlement of the OU3 buildings, interim storage of debris, containers, transportation, and disposition of material and remediation waste at the NTS. This cost does not include the maintenance costs associated with maintaining the structures each year.

8.0 SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

In this section, Alternatives 1, 2, and 3 are compared to allow selection of an alternative. This comparative evaluation is performed based on the NCP's criteria. These nine criteria fall within three categories: threshold, compliance with ARARs. Unless a specific ARAR is waived, each alternative must meet the threshold criteria in order to be eligible for selection. The five primary criteria are: long-term effectiveness and permanence; short-term effectiveness; reduction in mobility, or volume through treatment; implementability; and cost. State acceptance criteria are modifying criteria that shall be considered in remedy selection. The criteria are listed and briefly defined below:

Overall protection of human health and the environment addresses how an alternative, as a whole, achieves and maintains protection of human health and the environment.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs) addresses how the alternative complies with ARARs and other information from advisories, criteria, and guidance that the lead agencies have agreed is "to be considered".

Long-term effectiveness evaluates the long-term effectiveness of alternatives in maintaining protection of human health and the environment after response objectives have been met.

OU3 Decision Summary (Final)

Short-term effectiveness examines the effectiveness of an alternative in protecting human health and the environment during the construction and implementation of a remedy until response objectives have been achieved. Reduction of toxicity, mobility, or volume through treatment evaluates the anticipated performance of the specific treatment technologies an alternative may employ.

Implementability addresses the technical and administrative feasibility of alternatives and the availability of required goods and services. Cost evaluates the capital and operation and maintenance costs of an alternative.

State acceptance reflects the state's apparent preferences among concerns about the alternatives.

Community acceptance reflects the community's apparent preferences among concerns about the alternatives.

OU3 structures have generally exceeded their design life and are no longer useful for anything other than support for remedial activities at the site. In time, they will become a safety hazard. Therefore, DOE proposes eventual decontamination and dismantlement of the facilities independent of the interim remedial action implemented. The comparison of Alternatives 1, 2, and 3 presented here assumes eventual dismantlement of OU3 facilities. This assumes that if Alternative 3 is selected, decontamination and dismantlement will occur under the final remedial action. The comparative evaluation of the alternatives for interim remedial action is presented in Sections 8.1 through 8.9.

8.1 Overall Protection of Human Health and the Environment

Without eventual remediation, protection of human health and the environment not be ensured for the extended future because, over time, contaminants groundwater and be released via air to off-site receptors, resulting in Therefore, through either the interim or final remedial action for OU3, eventually involve decontamination and dismantlement of OU3 facilities, periods. Because remediation of the facilities would ultimately occur, be protective of human health and the environment after remediation has

8.2 Compliance with Applicable or Relevant and Appropriate Requirements

The NCP (40 CFR 300.400) identifies two categories of requirements w identified by the lead and support agencies for a remedial action, ARARs Applicable requirements are those which upon an objective determination a hazardous substance, pollutant, contaminant, remedial action, location circumstance found at a CERCLA site. Relevant and Appropriate requireme which, while not applicable to a specific release, may still address pro sufficiently similar to the circumstances of the release or remedial act be well-suited to the site.

In addition to ARARs, the lead and support agencies may, as appropria advisories, criteria, or guidance to be considered for a particular rele consists of advisories, criteria, or guidance that were developed by EPA agencies, or states that may be useful in developing CERCLA remedies.

OU3 Decision Summary (Final)

Assuming that facilities are eventually decontaminated and dismantle would comply with the ARARs identified in Section 10.2 during the decont dismantlement activities. However, during the period before the final r Alternatives 1 and 2 would allow the buildings to continue to age, weath resulting in the potential for public exposure to airborne contaminants releases to air, surface water, and groundwater. Therefore, Alternative adequately comply with ARARs before the final remedial action ROD. Howe with the NCP 300.430 (f)(ii)(C)(1), an alternative that does not meet an of the alternative is an interim measure that will become part of a tota will attain the ARAR.

8.3 Long-Term Effectiveness and Permanence

This criterion addresses the results of a remedial action in terms of the at a site after response objectives have been met. For an interim remed are intended to achieve final remediation. For this reason, long-term e meaningful in the context of an interim remedial action. The evaluation respect to this criterion will be performed in the OU3 FS to be complete final remedial action ROD.

8.4 Short-Term Effectiveness

Each alternative would be effective in protecting human health and the e during remediation through the use of engineering and administrative con decontamination and dismantlement of OU3 facilities would eventually occ Alternatives 1 and 2. However, a potential exists for increased risks t impacts to the environment associated with the delayed remediation for A Accelerating the decontamination and dismantling activities using Altern remedial action objectives to be achieved sooner and would provide prote earlier than Alternatives 1 or 2. It is estimated that the implementatio allow completion of remediation in the year 2012, in comparison to compl

remedial action ROD in the year 2016. Figure 8-1 compares schedules for alternatives and details the potential for early remediation offered by Additionally, acceleration of the remediation with the Production Area m advancement of the remediation of OU5 soils and perched groundwater unde Production Area.

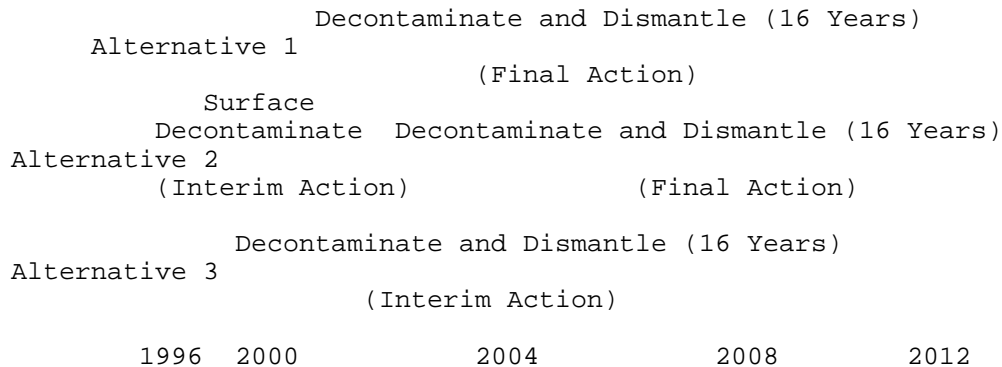


FIGURE 8-1 Comparison of Schedules for Alternatives 1, 2, and 3

OU3 Decision Summary (Final)

8.5 Reduction of Toxicity, Mobility, or Volume Through Treatment

Assuming eventual decontamination and dismantlement of facilities in which alternative is selected, all three alternatives would result in gr decontamination. Decontamination is a form of physical treatment, which contaminants in the host media, but merely transfers them to a secondary or treatment would be used to manage removed contaminants collected in a stream, thereby reducing contaminant mobility. Remediation waste residu decontamination process would be treated using existing on-site faciliti alternative would eventually result in a reduction of contaminant mobili decontamination, a comparison of alternatives requires an evaluation of In the period before final remediation, Alternative 1 and 2 could potent contamination of soil and groundwater, increasing the volume of contamin site. In addition, under Alternative 2, two surface decontamination eff be required (during interim remedial action and final remedial action) a increased volume of decontamination waste.

Alternative 3 would reduce the mobility of contaminants by containin removed contaminants in a secondary waste stream. Additionally, Alterna minimize the potential for an increase in volume of contaminated materia contaminants during the period before remediation is complete and would of decontamination residues and other remediation wastes.

8.6 Implementability

Alternative 1 would be the easiest to implement because it would req the short-term with all remediation occurring under the final remedial a continuing to use removal actions to proceed with cleanup would require studies, documents, regulatory reviews, and public comment periods for s

Alternatives 2 and 3 would use proven and reliable technologies, alt for Alternative 3 would be considerably larger than the scope of Alterna term, assuming eventual decontamination and dismantlement of OU3 facilit

implementability issues associated with the action would be similar for

8.7 Cost

Costs associated with implementing each of the alternatives are presented in Table 8-1. The base cost, as discussed in Section 7, is the 1994 dollar cost of the alternative itself. The total cost for Alternative 3 includes the base cost of the alternative plus the costs for site maintenance and monitoring. In addition, Alternatives 1 and 2 include the costs for performing the alternative plus the costs for decontamination, dismantlement, and interim site maintenance and monitoring.

A second method of cost comparison presented in Table 8-1 utilizes a present worth analysis instead of comparing costs in 1994 dollars. A present worth analysis calculates the amount of money that would have to be invested today in order to pay for the entire duration of the project. The real discount rate applied in this analysis is based on the October 1992 Office of Management and Budget's recommendation of 7 percent for a 20-year project (1996-2016).

OU3 Decision Summary (Final)

The differences in overall costs for the alternatives result from the costs associated with the maintenance and monitoring of the structures as well as the costs while they remain in place (including security forces, utilities, etc.).

TABLE 8-1 OU3 Remediation Cost Comparison (Millions of 1994 Dollars)

Alternative	Base Cost	Total Cost
1 -- No Interim remedial action	\$0	\$2,520
2 -- Surface Decontaminate Only	\$82	\$2,602
3 -- Decontaminate and Dismantle	\$1,076	\$2,164

Assuming eventual decontamination and dismantlement of OU3 facilities, Alternative 3 would result in the lowest overall cost. Alternatives 1 and 2 would be more costly due to the costs associated with the continuing operation and maintenance of the structures over a number of years. Additionally, for Alternative 2, the costs would increase under the assumption that the decontamination effort would be repeated prior to the final remedial action ROD. This effort would be necessary to meet the health and safety requirements of the remediation activities. Substantial removable contamination will remain in, under, and around equipment, roofs, utilities, and piping following decontamination in Alternative 2.

8.8 State Acceptance

The State of Ohio supports the preferred alternative, decontaminate and dismantle, identified in the Proposed Plan/Environmental Assessment.

8.9 Community Acceptance

The DOE solicited input from the community on the OU3 Proposed Plan/Environmental Assessment for Interim Remedial Action during the 60-day public comment period. Comments received during the public meeting and written comments from the community indicate support of the preferred remedial alternative (decontaminate and dismantle) that was identified in the Proposed Plan/Environmental Assessment. Issues raised during the public comment period are discussed in the Response Appendix A of this document; copies of the written and oral comments are

Appendix B.

9.0 SELECTED REMEDY

Based on the evaluation of the alternatives, Alternative 3 (Decontam Dismantle) has been identified as the selected remedy for the interim re The selected remedy consists primarily of the removal of gross surface c material in facilities, dismantlement of facilities, and a combination o majority of resulting remediation material/wastes and limited off-site d recoverable or non-recyclable remediation wastes until a decision concer

OU3 Decision Summary (Final)

is made in the final remedial action ROD for OU3. The interim remedial inconsistent with nor precludes implementation of final remedial actions Fernald site.

On the basis of currently available information, the selected remedy prov balance of trade-offs among the alternatives with respect to the pertine DOE and EPA believe the selected remedy will meet the threshold criteria NCP: be protective of human health and the environment and comply with local ARARs directly associated with the interim remedial action.

The major goal of he interim remedial action is to reduce risks early, im storage configuration of contaminated materials, minimize potential cont the environment, and contribute to the performance of the final remedial remedial action will achieve significant risk reduction early in the pro concerning disposition of contaminated materials is not addressed in thi action ROD because such goals are beyond the limited scope of this actio addressed in the final remedial action ROD for OU3.

Table 9-1 presents summary estimated costs for the selected remedy. Thes based on preliminary conceptual design information. Some changes may be remedy as a result of the remedial design and construction processes. S modifications resulting from the engineering design process and could mo estimate identified in this table. This estimate summarizes the costs a selected remedy by direct and indirect costs. The direct costs represen costs associated with the decontamination, dismantlement, packaging, sto transportation of the generated remediation wastes. Indirect costs repr designing and managing the work including management, engineering, healt tax, and contingency costs.

10.0 STATUTORY DETERMINATIONS

The selected remedy must meet the statutory requirements of CERCLA Sectio (40 USC 9621). The selected remedy must:

- Be protective of human health and the environment;
- Comply with ARARs;
- Be cost-effective;
- Utilize permanent solutions and alternative treatment technologies o recovery technologies to the maximum extent practicable; and
- Satisfy the preference for treatment that reduces toxicity, mobility a principal element.

Section 10.1 through 10.5 discuss how the interim remedy will meet these requirements. Consistent with Section 121 of CERCLA, Section 10.6 discu

requirement for U.S. EPA to review the interim remedial action.

OU3 Decision Summary (Final)

TABLE 9-1 Summary of Cost Estimate for Implementing the Selected Remedy

Itemized Description	Labor Cost	Expense
	(millions)	
Asbestos Abatement and Insulation Removal		
Removal of Machinery, Process Equipment, and Piping		
Building Demolition (includes removal of above-grade concrete, structural steel, ductwork, transite and metal paneling, doors, windows, and miscellaneous fixtures; also includes cost of cranes and other major rental equipment)		
Grade and Below-Grade Demolition (includes roads, railroads, sidewalks, storage pads, parking lots, below-grade piping, building foundations, etc.)		
Central Storage Facility (includes procurement, construction, and replacement of skins)		
Debris Packaging and Handling		\$0.
Direct Cost		
Engineering Design and Procurement		\$222.
Small Tools, Consumables, Minor Rental Equipment, and Temporary Facilities and Utilities		
Health and Safety (includes training, personal protective equipment, housekeeping/job site clean-up, safety reports, health physics, environmental monitoring, and emission modeling)		
Overhead, Burdens, and Project Management (includes construction, engineering, management, payroll, benefits, subcontractor bond, and office support)		
Sales Tax (6%)		
Contingency (20%)		\$104.
Indirect Cost		
Total Direct + Indirect Cost		
Landlord (O&M) Cost		
Cost of the Selected Remedy (in 1994 dollars)		

Net Present Value of the Selected Remedy
(calculated using a 4.4% real discount rate)

1993 Note: All numbers have been rounded to the nearest on hundred thousand do
Estimate for the Operable Unit 3 Proposed Plan for Interim Remedial Acti
"Present Worth Analysis for the Operable Unit 3 Proposed Plan for Interi
final) for more detailed information concerning the values presented in

OU3 Decision Summary (Final)

10.1 Protection of Human Health and the Environment

The selected interim remedy will be protective of human health and the en
through removal of contaminated structures and facilities and containmen
remediation waste in existing facilities or interim storage facilities u
reached in the OU3 final remedial action ROD concerning waste dispositio
structures will eliminate the potential threat of exposure to contaminan
Short-Term threats associated with the selected remedy can be adequately
engineering measures and access restrictions. No adverse impacts are ex
remedy.

10.2 Compliance with ARARs

The following sections discusses ARARs and Other Requirements that t
remedy must comply with. The category of Other Requirements represents
or regulations that are not environmental protection standards, but do a
performed at the Fernald site.

10.2.1 Contaminant-, Location-, and Action-Specific Requirements

The selected interim remedy will comply with all ARARs directly asso
interim remedial action and will be performed in accordance with all per
Listed below are those specific ARARs and TBC criteria that apply to the
remedial action for OU3. The ARARs are grouped according to contaminant
specific, and action-specific requirements.

CONTAMINANT-SPECIFIC REQUIREMENTS

Applicable

(1) Ohio Air Pollution Lead Control Regulations, Ohio Administrative Cod
Emissions Limits [Sets the ambient air quality standards for lead, to be
state of Ohio, at a maximum arithmetic mean of 1.5 micrograms per cubic
calendar quarter.]

(2) Ohio Air Pollution Regulations, Ohio Administrative Code 3745-20-02,
Demolition and Renovation Procedures for Asbestos Emission Control [Remo
materials from a facility being demolished or renovated before any wreck
would break up materials or preclude access to the materials subsequent
encase friable materials with a suitable leak-tight container.]

(3) National Emission Standards for Hazardous Air Pollutants (40 CFR 61)
Emission Standards for Emissions of Radionuclides Other Than Radon from
Facilities [Emissions of such radionuclides to the ambient air from DOE

those amounts that would cause any member of the public in any year an e
equivalent to 10 mrem/yr.]

(4) National Emissions Standard for Hazardous Air Pollutants (40 CFR 61,
145, 149, 150 and 153), National Emissions Standard for Asbestos Standar
and renovation, asbestos waste disposal.]

OU3 Decision Summary (Final)

(5) Ohio Water Quarterly Standards, Ohio Administrative Code (OAC) 3745-
3745-1-07, 3745-1-21; Ohio NPDES Permits, OAC 3745-33 [Sets surface water
standards for the state of Ohio. Discharges to surface waters must be p
which precludes degradation below the minimum standards.]

Relevant and Appropriate

(6) Ohio Air Pollution Control Regulations, Ohio Administrative Code, 37
emission of fugitive dust [No person shall cause or permit any fugitive
operated; or any materials to be handled, transported or stored; or a bu
appurtenances or a road to be used, constructed, altered, repaired or de
or installing reasonably available control measures to prevent fugitive
airborne.]

(7) Safe Drinking Water Act (42 USC 300G; PL 93-523), National Primary D
Regulations (40 CFR 141), Subpart B, Maximum Contaminant Levels (40 CFR
.16); Subpart F, Maximum Contaminant Level Goals, (40 CFR 141.50 through
National Revised Primary Drinking Water Regulations (40 CFR 141.60 throu
Drinking Water Regulations, Public Water System Primary Contaminant Cont
[Sets maximum contaminant levels (MCLs) and non-zero maximum contaminant
(MCLGs) for drinking water. These requirements would apply to the inter
ground water that was used or potentially used as drinking water was imp
decontamination and dismantling activities.]

To Be Considered

(8) Toxic Substances Control Act, as amended (15 USC 2607-2629; PL 94-46
Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution
Prohibitions (40 CFR 761), Subpart G, PCB Spill Cleanup Policy [Sets cle
contaminated materials.]

(9) Radiation Protection of the Public and the Environment (DOE Order 54
Chapter III) [Sets limitations for residual concentrations of radionucli
areas.]

(10) National Primary Drinking Water Standards, Maximum Contaminant Leve
Radium-228, and Gross Alpha Particle Radioactivity in Community Water Sy
141.15) and Ohio Drinking Water Regulations, Maximum Contaminant Levels
Radium-228, and Gross Alpha Particle Radioactivity in Community Water Sy
81-15); National Primary Drinking Water Standards, Maximum Contaminant L
Particulate and Photoradioactivity from Man-made Radionuclides in Commun
(40 CFR 141.16) and Ohio Drinking Water Regulations, Maximum Contaminant
3745-81-16) [Sets MCLs for radionuclides in drinking water.]

(11) Federal Water Pollution Control Act, Clean Water Act (33 USC 1251-1
Criteria (40 CFR 122) [Sets limits on the concentration of contaminants
protection of human health and aquatic life. Federal water quality crit
guidelines used by states to set water quality standards for surface wat
considered if the decontamination and dismantling activities impact surf

OU3 Decision Summary (Final)

LOCATION-SPECIFIC REQUIREMENTS

Applicable

(12) Protection of Wetlands (Executive Order 11990; 10 CFR 1022, 40 CFR agencies must avoid, to the extent possible, any adverse impacts associated with destruction or loss of wetlands and the support of new construction in wetlands where an alternative exists.)

(13) Nationwide Permit Program (33 CFR 330) [Nationwide permits are a type issued by the US Army Corps of Engineers, in particular, under the Clean Water Act 404.]

Relevant and Appropriate

None

To Be Considered

None

ACTION-SPECIFIC REQUIREMENTS

Applicable

(14) Noise Control Act, as Amended (42 USC 4901, et seq.); Noise Pollution Control Act (40 USC 7641, et seq.) [The public must be protected from noises that threaten health and welfare.]

(15) Solid Waste Disposal Act, as amended (42 USC 6901, et seq.), Solid Waste Disposal Act (40 CFR 262.11); Ohio Hazardous Waste Management Regulations, Ohio Administrative Code 3745-52-11 [Wastes must be evaluated (characterized) to determine if it is either listed or characteristic.]

(16) Solid Waste Disposal Act, as amended (42 USC 6901, et seq.), Solid Waste Disposal Act (40 CFR 264), Subpart B, General Facility Standards (Ohio Hazardous Waste Management Regulations, Ohio Administrative Code (OAC) 3745-54-10 through -18); Subpart C, Preparedness and Prevention (OAC 3745-54-30 through -37); Subpart D, Contingency Procedures (OAC 3745-54-50 through -56); Subpart E, Manifest System (OAC 3745-54-70 through -77) [Establishes general facility location, design and inspection, waste management emergency contingency plans, preparedness plans, and worker training.]

(17) Solid Waste Disposal Act, as amended (42 USC 6901, et seq.), Standards for Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (40 CFR 264.11) for miscellaneous units; Ohio Hazardous Waste Management Regulations, Ohio Administrative Code 3745-57 [Sets environmental performance standards and post closure requirements for miscellaneous units.]

OU3 Decision Summary (Final)

(18) Solid Waste Disposal Act, as amended (42 USC 6901, et seq.); Solid Waste Disposal Act (40 CFR 264.11)

(40 CFR 264), Subpart I, Use and Management of Containers (Ohio Hazardous Waste Management Regulations, Ohio Administrative Code (OAC) 3745-55-70); Subpart J, (OAC 3745-55-90); Subpart L, Waste Piles (OAC 3745-56-50 through 3745-56-56) used to store hazardous waste must be closed and in good condition. Tanks must be adequately designed and have sufficient structural strength and compatibility to be stored or treated to ensure that it will not collapse, rupture, or fail containment. Waste piles must be designed to prevent any migration of waste into adjacent subsurface soil or groundwater or surface water at any time.

(19) Solid Waste Disposal Act, as amended (42 USC 6901, et seq.), Standards for Hazardous Waste Treatment, Storage and Disposal Units (40 CFR 262) and Standards for Hazardous Waste Transportation (40 CFR 173) Ohio Solid Waste Management Regulation, Ohio Administrative Code 3745-52 respectively [Generally requirements for packaging, labeling, and marking for temporary storage and transportation.]

(20) Solid Waste Disposal Act, as amended (42 USC 6901, et seq.), Standards for the Management and Operation of Interim Status Hazardous Waste Treatment, Storage and Disposal Units (40 CFR 265), Subpart G, Closure and Post-Closure; Ohio Hazardous Waste Management Regulations, Ohio Administrative Code 3745-66 [Sets general requirements for closure of hazardous waste management units.]

(21) Solid Waste Disposal Act, as amended (42 USC 6901, et seq.) Containment Buildings (40 CFR 264), Subpart DD [Hazardous waste and debris may be placed in units of containment buildings for the purpose of interim storage or treatment.]

Relevant and Appropriate

(22) Toxic Substances Control Act, as amended (15 USC 2607 et seq., PL 94-469) Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution and Use Prohibitions (40 CFR 761), Subpart A, General [Inspection and testing of materials contaminated with PCBs.]

(23) Solid Waste Disposal Act, as amended (42 USC 6901, et seq.), Solid Waste Management Units (40 CFR 264), Subpart S, Corrective Action Management Unit [Allows remediation of waste and disposal within a corrective action management unit which can encompass units or areas where contaminants are found.]

To Be Considered

(24) Radiation Protection of the Public and the Environment (DOE Order 5400.5 incorporates by reference CERCLA Section 120 and UMTRA Title I) [Structures released from DOE facilities for reuse without radiological restrictions specified levels.]

(25) Radioactive Waste Management (DOE Order 5820.2A, Chapter III) [Sets limits to any member of the public, requirements for releases to the atmosphere, environmental monitoring program.]

(26) Radiation Protection of the Public and the Environment (DOE Order 5400.5 Section 6) [Sets standards for storage facility for waste containing uranium and decay products.]

(27) Effluent Control and Monitoring (DOE Order 6430.1A, Section 1324-7) that may contain fission products shall be provided with two monitoring systems.

(28) Solid Waste Disposal Act, as Amended (42 USC 6901, et seq.), Solid subpart S), Corrective Action Rule (proposed at 55 FR 30797) [Establishes RCRA solid waste management units.]

10.2.2 Other Requirements

In addition to ARARs, there are other requirements from Occupational Safe Health Administration (OSHA), Department of Transportation (DOT), and DO which this interim remedial action must comply. These other requirements which the EPA has determined not to be standards for environmental protection (worker protection and off-site actions) and are therefore not ARARs. EPA protection, particularly OSHA's 29 CFR 1910.120, as a requirement rather because: (1) it cannot be waived; and (2) it is not an environmental

This listing of 'other requirements' is not an all inclusive list of are additional requirements which could result from off-site actions and under CERCLA Section 121(d)(3). Under this requirement, the CERCLA Off-activities that occur off-site shall be at facilities that are in compliance with the Clean Air Act, and other environmental laws and applicable state Determinations under this rule will be made during the interim remedial are only those other requirements that apply to the selected interim rem

Other Requirements

(1) Radiation Protection for Occupational Workers (DOE Order 5480.11, Ch requirement establishes DOE radiation protection standards to ensure protection from ionizing radiation. The requirements set forth in this order require ALARA policy, radiation protection standards for internal and external exposure of workers, planned special exposure, radiation protection standards for children, exposure to minors and students, radiation protection standards for public areas, and various procedural requirements.]

(2) Radiation Protection Rules, Ohio Administration Code; Chapter 3701-3 Protection Standards; Rules 3701-38-13, 3701-38-15 and 3701-38-16 [Individual areas may not be exposed to airborne radioactive material in average concentrations those listed.]

(3) Occupational Safety and Health Administrative Standards (29 CFR 1910 Subpart Z, Toxic and Hazardous Substances; 1910.1025, Lead; 1910.1028, Benzene; 1910.1101, Asbestos; 1910.1018, Inorganic arsenic [Sets worker exposure hazardous substances and prescribes the methods for determinations of concentrations])

(4) Occupational Safety and Health Administration Standards; Occupational Noise and Environmental Control (29 CFR 1910; 1910.95) Subpart G, Occupational Noise limits of worker exposure to noises during the performance of their duties

(5) Hazardous Material Transportation Act, as amended (49 USC 1801-1812) CFR 263), Standards Applicable to Transportation of Hazardous Waste [Adopts standards and requires compliance with the manifest system for hazardous

OU3 Decision Summary (Final)

(6) Hazardous Materials Regulations; Shippers -- General Requirements for packaging (49 CFR 173), Subpart 1, Radioactive Materials [Establishes requirements and strength of various packaging used for the shipment of hazardous and

(7) Occupational Safety and Health Administration Standards for Hazardous and Emergency Response (29 CFR 1910.120) [Sets the training standards for

conducting hazardous waste operations and emergency response.]

10.3 Cost-Effectiveness

OU3 facilities and structures have generally exceeded their design life. Facilities identified for removal other than support for remedial activities at these facilities will pose a safety hazard. Therefore, DOE will propose eventual dismantlement of the facilities independent of the interim remedial action. Implementing the selected remedy as an interim remedial action, the remedy is accelerated by nearly four years. The selected interim remedy is cost effective, reduces costs associated with the continued operation and maintenance of the facilities less overall than the other alternatives (coupled with assumed eventual dismantlement) and it is proactive toward protection of the public through

10.4 Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

Because the selected remedy is an interim remedial action rather than a permanent solution, the selected remedy does not utilize permanent solutions or conservation treatment technologies. The selected remedy provides the best balance of the alternatives with respect to the balancing criteria, given the limitations. It does not satisfy the statutory preference for remedial actions that reduce toxicity, mobility, or volume as a principal element of the action. The final remedial action and alternative recovery) will be utilized to the maximum extent practicable. The final action will satisfy the statutory preference for treatment as a principal element or for not meeting the preference. During the interim remedial action, recycling and reuse will be utilized to the maximum extent practicable.

The selected interim remedy best meets the evaluation criteria by addressing human health and the environment, accelerating the remediation process by and reducing overall costs associated with OU3 remediation. DOE and EPA selected interim remedy will protect human health and the environment. DOE supports the selection of this interim remedy.

10.5 Preference for Treatment as a Principal Element

Through physical treatment of the materials that cause the principal operable unit (contaminated structural materials), the selected remedy meets the statutory preference for remedial actions that employ treatment to reduce toxicity or volume as a principal element of the action. Through decontamination, contaminants will be removed and consolidated, thereby reducing their mobility.

OU3 Decision Summary (Final)

Liquid waste streams resulting from the decontamination activities will be treated by the site water treatment system. Secondary solid wastes will be containerized. Recycling and reuse will be pursued to the maximum extent practicable. The final remedial action for OU3 will meet the statutory preference for treatment as a principal element or will provide justification for not meeting the preference.

10.6 Review of the Interim Remedial Action

Section 121(c) of CERCLA and the Amended Consent Agreement require that DOE review remedial actions no less than every five (5) years after the implementation of remedial actions to ensure that human health and the environment are being protected by the remedial actions being implemented. However, because this is an interim

ROD, review of this site and this remedy will continue as DOE develops f alternatives for OU3.

11.0 COMMITMENT FOR FURTHER ANALYSIS AND SELECTION OF LONG-TERM RESPONSE ACTION

Consistent with the terms of the Amended Consent Agreement, DOE is c process of performing a RI/FS for OU3. The completion of the OU3 RI/FS selection of the long-term response action for the operable unit. In ac milestones established in the Amended Consent Agreement, DOE must submit baseline risk assessment report to EPA by March 13, 1996, and an FS repo plan by August 7, 1996. The proposed draft ROD for the final action is submitted to EPA by April 2, 1997.

12.0 DOCUMENTATION OF SIGNIFICANT CHANGES

The Proposed Plan/Environmental Assessment for Interim Remedial Acti released for public comment in December 1993. The Proposed Plan/Environ Assessment identified Alternative 3, Decontaminate and Dismantle, as the alternative. The DOE reviewed all written and verbal comments submitted comment period. Upon review of these comments, suggestions and observat public were incorporated into this IROD to further clarify the descripti Portions of Alternative 3 that required clarification were the maximum u structures for purposes of interim storage (as a means to avoid construc structures) and a guarantee that interim storage would not inadvertently storage. Additional comments received that did not require clarificatio committed to satisfying, are to provide air monitoring information updat regularly and to emphasize the removal of waste from the site as an impo the interim action to proceed as planned. Finally, from the comments re determined that no significant changes to the interim remedy, as it was in the Proposed Plan/Environmental Assessment, were necessary.

OU3 Decision Summary (Final)

13.0 REFERENCES

Federal Register (FR), March 7, 1979, Compliance with FloodPlain/Wetland Review Requirements, 10 CFR Part 1022.

Code of Federal Regulations (CFR), July 1, 1992, National Oil and Hazard Pollution Contingency Plan; Final Rule, 40 CFR Part 300.

State of Ohio vs. United States Department of Energy, et al, 1993, Stipu of Consent Decree Entered December 2, 1988, as amended on January 22.

U.S. Department of Energy, 1990, Radiation Protection of the Public and DOE Order 5400.5, Office of Environment, Safety and Health, Washington,

U.S. Department of Energy, 1993a, FEMP Waste Information Manual, prepare Environmental Restoration Management Corporation, Cincinnati, Ohio.

U.S. Department of Energy, 1993b, Improved Storage of Soil and Debris, R Work Plan, prepared by the Fernald Environmental Restoration Management Cincinnati, Ohio.

U.S. Department of Energy, 1993c, Operable Unit 3 Proposed Plan/Environm Assessment for Interim Remedial Action, Final, prepared by the Fernald E Restoration Management Corporation, Cincinnati, Ohio.

U.S. Department of Energy, 1993d, Operable Unit 3 Remedial Investigation Study Work Plan Addendum, Final, prepared by the Fernald Environmental Remediation Management Corporation, Cincinnati, Ohio.

U.S. Department of Energy, 1993e, 1992 Site Environmental Report, prepared by the Fernald Environmental Remediation Management Corporation, Cincinnati, Ohio.

U.S. Environmental Protection Agency, 1988, Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final.

U.S. Environmental Protection Agency, 1989, Guidance on Preparing Superfund Documents: The Proposed Plan, The Record of Decision, Explanation of Significant Differences, The Record of Decision Amendment, Interim Final.

U.S. Environmental Protection Agency, 1991a, Consent Agreement as Amended CERCLA Sections 120 and 106(a) in the Matter of: U.S. Department of Energy Production Center, Fernald, Ohio, Administrative Docket No. V-W-90-C-052 Chicago, Illinois, Sept. 18.

U.S. Environmental Protection Agency, 1991b, Guide to Developing Superfund Interim Action, and Contingency Remedy RODs, Fact Sheet.

OU3 Decision Summary (Final)

APPENDIX A

RESPONSIVENESS SUMMARY

OU3 Decision Summary (Final)

Page left intentionally blank.

OU3 Decision Summary (Final)

APPENDIX A

RESPONSIVENESS SUMMARY

A.1 Purpose

As stated in U.S. Environmental Protection Agency (EPA) Guidance on Superfund Decision Documents (EPA 1989), the responsiveness summary serves important purposes. First, it provides U.S. Department of Energy (DOE), information about community preferences regarding both the proposed remedy and general concerns about the site. Second, it demonstrates how public input is integrated into the decision-making process. Third, it allows DOE to respond to public comments.

This responsiveness summary has been prepared pursuant to the terms of the Amended Consent Agreement between DOE and EPA, as well as relevant Federal regulations, and guidelines, including:

• The Comprehensive Environmental Response, Compensation, and Liability

- Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act, 42 United States Code, Sections 9601, et.
- ù National Oil and Hazardous Substances Pollution Contingency Plan 40 Code of Federal Regulations, Part 300;
 - ù Community Relations in Superfund: A Handbook, January 1992, EPA/540/R-92/009; and
 - ù Guidance on Preparing Superfund Decision Documents: The Proposed Record of Decision, Explanation of Significant Differences of Decision Amendment, Interim Final, July 1989, EPA/540/G-89/

This responsiveness summary allows DOE to demonstrate the public's involvement in the development of the Proposed Plan/Environmental Assessment for Interim Remedial Action and the Record of Decision for Interim Remedial Action, subsequently revised. After public comments and concerns had been formally submitted to DOE, in this form, the comments were then summarized into issue statements with DOE's responses. The comments are attached as Appendix B of this document.

Section A.2 of this responsiveness summary gives an overview of public involvement for the Fernald Environmental Management Project (FEMP). Section A.3 gives a description of the public's involvement in the development of the interim remedial action. Section A.4 discusses the development of the issue statements and presents DOE responses. Section A.5 summarizes the responsiveness of DOE to public input by discussing the effects of public input on this IROD. Section A.6 discusses comments not directly affecting the proposed action.

OU3 Decision Summary (Final)

A.2 Public Involvement for the FEMP

Environmental issues at Fernald first became public in 1984 when it was discovered that nearly 300 pounds of slightly enriched uranium oxide had been released to the environment from the Plant 9 dust-collector system. It was also disclosed during this time that property wells south of Fernald had been contaminated with uranium in 1984.

In 1986, DOE entered into a Federal Facilities Compliance Agreement with the site. The FFCA provided for a Remedial Investigation/Feasibility Study (RI/FS) action for the site. The RI/FS was initiated to assess the nature and extent of contamination at the site and to recommend cleanup strategies. In 1989, production was discontinued at that same year, Fernald was designated a Superfund site when it was placed on the National Priorities List. The FFCA was superseded in 1990 by a Consent Agreement with EPA, which established the operable units and cleanup schedules. Further cleanup agreement occurred in 1991, with the Amended Consent Agreement, which modified cleanup schedules and the operable unit definitions for the site. In 1992, the site was officially closed as a production facility and its operations were transferred to the Environmental Restoration and Waste Management Division.

When monitoring wells showed elevated levels of uranium in 1989 and 1990, DOE agreed to provide bottled water to homes with uranium levels above 2.7 pCi/L (ppb). As work on the RI/FS continued, DOE completed several near-term actions to reduce the potential for a release of contamination that would endanger the environment. Also in 1990, DOE authorized opening an information repository, the Public Environmental Information Center (PEIC) in the JAMTEK Building, 10 Cleves Highway, Harrison, Ohio 45030. The administrative record, on which decisions are based, is also located at the JAMTEK Building; a copy of the record is also maintained at EPA Region 5, Waste Management Division, 77 West Jackson Boulevard, Chicago, Illinois 60604.

DOE's community relations activities include the following:

- A community assessment (1986);
- A community assessment (June - July 1989);
- A Community Relations Plan (August 1992 version approved October 15, 1992);
- Public reading rooms and administrative record;
- Regular briefings at local township trustee meetings;
- Presentations to the local environmental group, FRESH;
- Community meetings approximately each quarter;
- Workshops and roundtables for interested parties;
- Press releases, fact sheets and a newsletter;
- Public comment periods for decision documents and responsiveness summaries;
- Tours, as requested;
- Annual environmental monitoring reports; and
- The Fernald Citizens Task Force.

OU3 Decision Summary (Final)

A.3 Public Involvement for Operable Unit 3

In addition to the sitewide community relations activities discussed specific public involvement and response activities have been undertaken Unit 3 (OU3) initiatives. DOE proposed an interim remedial action to a decision for the OU3 structures well ahead of the original schedule. This consistent with addressing public concerns about the length of time before action at the FEMP would begin. The following information illustrates the public involvement in the project and the responsiveness of DOE to the project since its beginning.

The concept for this interim remedial action was first formally discussed with Ohio EPA (acting on behalf of the state) on January 13, 1993 and met with response. On February 18, 1993, DOE discussed the schedule, scope, and project with EPA and Ohio EPA (OEPA). Following discussions at this meeting detailed development of the project plans.

The local public was informed of DOE's intent to pursue the development of a remedial action during a January 12, 1993 public meeting for Removal Action Engineering Evaluation/Cost Analysis (EE/CA), known as the Management of Structures at the FEMP. During that meeting the public expressed to DOE lack of progress on large-scale remediation efforts at the site, reinforcing the need for interim remedial action. In addition, notification to the public through the report from the FEMP began highlighting the activities that were underway of the interim remedial action decision documents.

Several of the FEMP's regular events, which support the site's ongoing public information program, included discussions of DOE's pursuit of an interim remedial action. During the spring and fall of 1993, updates on the DOE effort were given at the monthly meetings held with FRESH. The STEP program (Science, Technology, Environment, and the Public), which involves the public in the remediation process, held several meetings in September and October of 1993, and included discussions on the interim remedial action being planned.

During development of the Proposed Plan/Environmental Assessment for Remedial Action, EPA and OEPA provided review comments and project guidance of the public through the process outlined in the Amended Consent Agreement.

the Proposed Plan/Environmental Assessment was received from EPA and OEP December 3 and 6, 1993, respectively. The public was formally notified comment period by advertisement in the legal section of three local, general newspapers on December 8, 1993, initiating the formal comment period. A notification by display-type newspaper advertisement and direct mailing mailing list was also undertaken on December 15, 1993. Both the Proposed Plan/Environmental Assessment and a condensed fact sheet were made available in the FEMP administrative record located at the PEIC. Over 1,000 copies were distributed by direct mailing to local residents, local media, public stakeholders.

To facilitate public involvement in the project, a public meeting was held in 1994, including a presentation session, a question-and-answer session, a

OU3 Decision Summary (Final)

session. Invitation to the meeting had been provided through the fact sheet as the legal section and display advertisements in the local newspapers. The session provided an opportunity for the public to contribute oral and written comments. The entire meeting was transcribed by court reporter to provide an official transcript. A copy of the transcript has been placed in the administrative record for public review. During that meeting, the public indicated a need for DOE to evaluate the proposed action and to formulate comments on the plan; therefore, DOE extended the public comment period by 30 days to close on February 1, 1994. Additional advertisements were published in the same local newspapers to reach the public at-large.

Issues of particular concern voiced during the January 5, 1994 public meeting included material transportation, interim storage facilities, safety from emission of radioactive materials, Environmental Policy Act (NEPA) and CERCLA integration in FEMP clean-up documents. To provide more information about the regulatory process, in connection with NEPA/CERCLA integration approach for the site and OU3, DOE held a roundtable with the public on January 24, 1994. At the roundtable, issues of public concern including the Proposed Plan/Environmental Assessment and its relationship to Unit 4 (OU4) Environmental Impact Statement (EIS) and future NEPA documents for remaining operable units.

On February 4, 1994, a meeting was held with the vice president of FEMP to discuss the safety of the planned decontamination and dismantlement actions, using emissions monitoring data from two decontamination and dismantlement activities (Plant 1 Ore Silos and Plant 7).

Public comments were received in written and verbal form during the portion of the public meeting and in written form through the mail during the comment period. DOE received comments from OEPA and the State of Nevada, and the following section summarizes the significant issues resulting from the public comments and provides DOE's responses to these comments.

A.4 Issues Summary

This responsiveness summary focuses on the formal comments submitted during the Public Comment Period. Within this responsiveness summary, oral and written comments (see Appendix B) are categorized into significant issues. For each of the issues, a statement has been prepared that addresses the concerns expressed by one or more commentors. In many instances, the issue statements are paraphrased from the comments to succinctly represent the concerns of several commentors. The oral comments have been compared with the questions raised during the question-and-answer sessions with the public to ensure that all significant issues have been addressed.

by the following issue statements.

For the purpose of developing issue statements, a comment is considered if it involves:

- The definition or scope of the preferred alternative,
- Public or state acceptance of the preferred alternative,
- The implementation or impacts of the preferred alternative,

OU3 Decision Summary (Final)

- Conclusions drawn from evaluations or assessments provided in the Proposed Plan/Environmental Assessment,
- Safety of the work performed, or
- The enforceability of the decision reached.

At the end of each issue statement, the specific comment letter(s) in which the issue was raised is identified by an alphabetic identifier. cross-reference of the alphabetic identifiers with the commentors. These included in Appendix B and are part of the administrative record for the comments that were not considered to be issues have been addressed in the summary explanations.

Issue 1

The definition of the term "interim storage" should be presented with Decision for Interim Remedial Action. (Comments H, I, J, N, and O.)

Response: For the interim remedial action, the definition of the time storage is the period from the initiation of the interim action until the final remedial action. In reality, once the final decision is reached cannot immediately be removed for treatment or disposition. Some time with the development of the treatment and/or disposal facilities before interim be removed. Because the final treatment and disposal option for OU3 is time (and will not be until the OU3 final remedial action Record of Decision due in 1997), an estimate of the time frame for remediation of stored materials made until after the final remedial action decision. The time frame for materials and the dismantlement of the interim storage facility will be Remedial Design/Remedial Action (RD/RA) Work Plan for the final remedial

Issue 2

The interim action should make the maximum effort to utilize existing areas rather than construct new storage facilities. To support this commitment to manage and ship existing waste residues to obtain space for (Comments I, K, N, and O.)

Response: It is the intent of DOE to construct interim storage structures of the interim remedial action wastes only if necessary. Available storage Production Area will be utilized to the maximum extent practicable. To avoid the construction of new storage facilities, the following statement the IROD in Section 7.3 under the description of Alternative 3 (Decontam

The proposed tension support structures are designed only for storage with an intended design life of 25 years, and as such can be for long-term storage. The intent of building these facilities is as an interim or temporary storage area for wastes generated from existing storage space is not available and for use as a staging support segregation, packaging, and transportation of materials for

OU3 Decision Summary (Final)

TABLE A-1 Written and Oral Comments Received

Letter	Commentor
WRITTEN COMMENTS	
A	Kenneth J. Wurzelbacher, Hamilton, Ohio
B	Carl A. Woycke, Harrison, Ohio
C	Maggie Merritt, Harrison, Ohio
D	Paul Ruttencutter, Hamilton, Ohio
E	Laura Jane Whitesides, Las Vegas, Nevada
F	Lawrence L. Stebbins, Hamilton, Ohio
G	Edwa Yocum, Harrison, Ohio
H	Vicky Dastillung, Vice President of FRESH, Hamilton, Ohio
I	Pam Dunn, Harrison, Ohio
J	Lisa Crawford, President of FRESH, Harrison, Ohio
K	Karen Bell, President Crosby Elementary PTA, Harrison, Ohio
L	Norma Nungester, Harrison, Ohio
M	Holly Schick, State Director of the Ohio Small Business Develo Columbus, Ohio
N	Unsigned letter submitted by the Fernald Atomic Trades & Labor
O	Graham E. Mitchell, Project Manager, Ohio Environmental Protec Dayton, Ohio
P	Maud Naroll, State Clearinghouse Coordinator, Department of Ad Carson City, Nevada
ORAL COMMENTS AND ATTACHMENTS	
Q	Oral Comment by Bob Tabor
R	Oral Comment by Jerry Monahan
S	Submitted Attachment to Bob Tabor's Oral Comment
T	Oral Comment by Vicky Dastillung
U	Oral Comment by Robert Richardson
V	Oral Comment by Pam Dunn

W Oral Comment by Lisa Crawford
X Submitted Attachment to Robert Richardson's Oral Comment
Y Oral Comment by Richard Miller

OU3 Decision Summary (Final)

To minimize constructing additional interim storage facilities, available space within buildings or on the Plant 1 Pad will be utilized for interim storage or staging to the maximum extent practicable. If interim storage is obtained within existing facilities it will not be necessary to construct planned interim storage structures.

The final decision for material disposal, whether on-site or off-site, will be decided as part of the OU3 final remedial action ROD in 1997, which will determine the location for disposition of OU3 remediation wastes including interim storage and the storage structures. A decision for on-site or off-site disposal of remediation wastes would preclude the use of the interim storage for permanent storage and would require construction of structure(s) specifically to meet the stringent requirements of permanent disposal. If the decision is for on-site or off-site disposal, the interim storage facility will be used only long enough to support staging operations for remediation activities resulting from dismantlement activities. Therefore, the time frame for construction of the structures is dependent upon the final decision for disposition of remediation wastes, which is expected to be made in 1997. Once staging is no longer necessary to support remediation waste dispositioning, the interim storage facility will be removed as part of the OU3 interim remedial action and the remediation wastes will be dispositioned as part of the OU3 final remedial action.

DOE recognizes the need to emphasize the removal of existing waste facilities and pads to the maximum extent practicable to allow use of these structures for staging of wastes generated during the interim remedial action. Under the interim remedial action, hazardous remediation wastes resulting from the interim remedial action will be stored in the existing permitted hazardous storage facilities on-site until a decision is obtained.

Issue 3

Concern was expressed over placing interim storage facilities on the south side of the site, outside of the Production Area, due to prevailing wind direction from the southwest and the possibility for airborne emissions reaching off-site. A concern was expressed over potential leaks from these interim storage facilities and associated migration of contaminants to the Great Miami Aquifer. (Comments)

Response: The location of any new interim storage facilities for remediation wastes will be based on several requirements: (1) that it be large enough to hold up to 100,000 cubic feet of waste; (2) that there be no known chemical contamination (hazardous, PCB, asbestos, or petroleum products); (3) that construction not interfere with other planned uses (other remediation facilities); (4) that it not be in an environmentally sensitive area such as a floodplain, wetland, or habitat for endangered species; and (5) that it provide the greatest protection to the Great Miami Aquifer from the interim storage facility. Satisfying these requirements, the interim storage facility needs to be located in the northeast corner of the site.

Although the prevailing winds tend to rise from the southwest, the risk of contamination from a storage facility at this location has been estimated to be low and acceptable.

OU3 Decision Summary (Final)

Appendix E of the Proposed Plan/Environmental Assessment. Further, the viewed as an improvement to the existing storage configuration of contam materials, since the first step in the interim remedial action will be i of the buildings. Following dry vacuuming, all exposed surfaces within washed with water to dislodge removable surface contamination; this will contaminants which could become airborne during dismantling of the build materials sent to interim storage would be cleaner than they had been as prior to the action. After dismantlement, these construction materials or drums, if appropriate, to further contain and prepare the materials f This process will allow for the safe storage of materials in interim sto

If additional interim storage facilities are required to be construc storage of debris, the interim storage facilities would be designed in a requirements of Removal No. 17, Improved Storage of Soil and Debris. Th facilities would be designed as structural steel frames with heavy synth are capable of withstanding severe weather conditions such as heavy snow and rainfall. In addition, rainwater collected at the interim storage f the existing stormwater collection system. By storing the bulk and cont out of weathering conditions on pads and under structures, releases from be minimized. Therefore, it is not anticipated that water will be relea storage facilities to the underlying till.

As discussed in the response to Issue 2, DOE would attempt to utiliz to the extent practical for interim storage and staging purposes to avoi the proposed structures. The storage of materials in existing or new fa compliance with NEPA and CERCLA.

Issue 4

What happens if the Nevada Test Site (NTS) does not accept the waste disposition at that site? (Comment G.)

Response: The FEMP waste management program has previously secured from NTS for the disposition of construction debris. NTS currently rece radiological waste shipments from the FEMP on a regular basis. At this that the volumes of materials estimated in the Proposed Plan/Environment Appendix G, will be accepted by NTS. Waste acceptance criteria for NTS non-hazardous radioactive wastes generated by this project are compatibl these materials cannot be disposed of at NTS, onsite interim storage or could be utilized for the remediation wastes generated before the OU3 fi ROD in 1997.

Issue 5

Would off-site traffic be increased as a result of the action and wo traffic potentially spread contaminants? (Comment K)

OU3 Decision Summary (Final)

Response: The socioeconomic analysis performed for the Proposed Pla Assessment estimates no significant increase in traffic. Any increase t be attributable to off-site shipments of material, and this is expected

As a result of the OU3 interim remedial action, it is anticipated that a shipments of remediation waste would be shipped off-site for disposal at OU3 final remedial action ROD. These shipments would occur over a 3 year average of less than 1 truck load per day and would have little impact

During remediation activities, current procedures will be followed for vehicles exiting contaminated zones on-site. All exposed surfaces of the surveyed for contamination, and if contamination is detected, the vehicle remove it. The procedures for containerization of materials for transport possibility for removable contamination to be present on the exterior surfaces of containers. In addition, all containers are surveyed during and after pickup no contamination is expected to be spread off-site as a result of construction traffic associated with the OU3 remediation wastes.

Issue 6

A commentor expressed that the use of NTS as the selected site for disposal of a limited quantity of materials is not technically in compliance with DOE because the OU3 Proposed Plan/Environmental Assessment does not assess disposal at the NTS and no other NEPA documentation exists supporting this action

Response: Alternative 3 includes the proposal to ship up to 10 percent generated from implementing this remedial action (i.e., up to 42,500 cubic yards (1.15 million cubic feet) off-site for disposition and recycling prior to decision to be determined by the final remedial action ROD for OU3. DOE has estimated that 15,900 cubic yards (429,000 cubic feet) of non-recoverable materials may be dispositioned off-site before the final remedial action (expected to be in 1997). The NTS is identified as a possible disposal

DOE recognizes the need to update the NEPA reviews and documentation at the NTS. Currently, DOE proposes to prepare a single, site-wide environmental statement (EIS) that would address activities sponsored by Defense Program restoration at the NTS, waste management activities, and other actions including possible siting and initiation at the NTS. DOE is committed to accelerate completion of this EIS and a Notice of Intent to inform the public and initiate the scoping process is in draft. DOE anticipates publication of the Notice of Intent in 1994. Any wastes that may be shipped to the NTS would meet the Nevada Open Space waste acceptance criteria and the estimated quantity from the OU3 interim remedial action between now and 1997 represents about 3 percent of the total waste currently at the NTS. Furthermore, the remedial actions contemplated for OU3 will span a number of years, with the first years concentrating on remedial design and implementation. Consequently, the majority of the waste shipments from the OU3 interim remedial action would take place following completion of the wide EIS for the NTS. The site-wide EIS for the NTS is expected to be completed

OU3 Decision Summary (Final)

Under DOE Order 5820.2A, DOE facilities with disposal sites must prepare and maintain site-specific radiological performance assessments for waste disposal facilities. DOE has prepared site-specific radiological performance assessments for the disposal facilities at the NTS. A preliminary review of the Area 5 disposal facility performance was conducted by a peer review panel. Although the panel agreed with NTS recommendations, additional technical justification was necessary to finalize the performance assessments. The panel generally accepted that the facility would easily meet the radiological performance assessments for Area 5 and Area 3 are currently being reviewed

Issue 7

Environmental monitoring data should be collected as buildings are removed

that engineering controls are effective in controlling potential environmental contaminants collected for the RI/FS should be incorporated into the design to control contaminants during remediation. Lead-based paint has been shown to be a concern for children and, as such, should be included in any monitoring program. Monitoring should be made available to the public via roundtable meetings, fact sheets, and J, K, and O.)

Response: The dismantlement techniques used for the OU3 interim remedial action include a series of engineering controls and methodologies designed to manage releases of loose airborne contaminants. Each structure will be subjected to ground decontamination prior to dismantlement, minimizing the potential for airborne contaminant releases during dismantlement. During decontamination, airflow control and collection of airborne contaminants within the buildings will be performed. RI/FS data is currently being collected for OU3 and will be extensively used to anticipate the contaminants to be encountered during the remedial activities. Some unknown or unexpected contaminants may be encountered during remedial activities, but precautions and procedures will be in place to address this possibility. All data collected will be factored into the design approach for dismantlement, to minimize airborne releases, and to tailor the specific dismantlement techniques to the contaminants present.

In addition, during decontamination and dismantlement, air monitoring will be conducted both the FEMP fence line perimeter and at nearby off-site locations. Airborne radiological and asbestos contaminants will also be collected at work areas to ensure that airborne releases from the job site are maintained at low levels as established for respiratory protection and worker safety. If data collected during RI/FS highlight other chemical contaminants of concern, such as lead, monitoring for these contaminants will also be performed.

Because interior decontamination work will utilize the building shell as a barrier in combination with directed airflow systems, minimal ambient air contamination is expected. Once the exterior building sides and roof have been removed, the building would generally be the structural steel frame and concrete. The interior will have been decontaminated leaving little surface contamination that would be encountered during dismantlement. Because of this approach to the building dismantlement, engineering controls used, ambient airborne releases are expected to be at background levels. If work zone or perimeter fence line airborne concentrations are significantly above background, contingency measures will be implemented.

OU3 Decision Summary (Final)

contaminant emissions. For example, work would be stopped, exposed area would be otherwise controlled, and engineering measures would be increased before dismantlement to ensure that nearby members of the workforce and the general public would not be impacted.

Data resulting from the interim remedial action will be made available to the public regularly through placement in the public reading room, roundtable meetings, fact sheets and monthly reports.

Issue 8

How will the preferred alternative reduce the costs of site remedial action? What storage structures requiring monitoring are constructed? What is the cost of these structures? (Comments G and I.)

Response: The cost of constructing and operating the interim storage structures is very small compared to the overall cost of the decontamination and dismantlement of the OU3 structures. Their cost is also very small when compared to the cost of the early implementation of the interim remedial action; therefore,

alternative could have required many more structures and still resulted for the overall action. The savings primarily result from the early imp (with resulting early completion and avoidance of many costs associated buildings). However, during implementation of the action, every effort existing facilities, such as the Plant 1 Pad, and avoid construction of

Costs for engineering, siting, and construction of the interim stora size and type proposed for this project (40,000 square foot tension supp been estimated at approximately \$2 million per structure (compared to a million for the entire interim remedial action and approximately \$350 mi implementation). Costs for operation of storage/staging in new structur equivalent to costs of operations based in existing structures. Mainten structures would be significantly less than maintenance costs for the ag Maintenance costs for the new structures would primarily be associated w of the fabric covering as needed.

Issue 9

While long-term effectiveness is not required to be considered for a it is important to the community that this evaluation criterion be consi possible. (Comment H.)

Response: Long-term effectiveness addresses the results of a remedi of the risk remaining at the site after a final remedial action is imple level of risk remaining at the site and how well human health and the en protected from treatment residues and untreated materials. The long-ter the OU3 remediation will be evaluated within the Feasibility Study for t ROD.

OU3 Decision Summary (Final)

For an interim remedial action, such as this, the actions are not in final remediation. The interim action is taken to reduce potential risk the site undergoes the RI/FS process. For this reason, long-term effect addressed in the context of an interim remedial action and this is consi CERCLA. This evaluation will be performed under the OU3 Feasibility Stu in support of the OU3 final remedial action ROD.

However, long-term effectiveness is important to DOE as well, becaus remedial action must be consistent with the final remedial action, which assessment of the long-term effectiveness. DOE believes that the long-t decontaminating and removing the aging and contaminated structures of OU because through the action thereusable materials will be recycled, the contaminated materials will be consolidated and stored in a more environ manner, and the physical hazards of the deteriorating structures will be Decontamination and dismantlement of the structures would be consistent remedial actions for the operable unit and the FEMP site because the act storage of contaminants and contaminated materials in the interim, but d treatment or disposal options available to the final remedial action ROD of assessment, DOE believes that long-term effectiveness of the project satisfactorily considered.

Issue 10

The actions proposed for the interim remedial action must not bias t action ROD or eliminate options for final disposition of the remediation interim remedial action proposed to decontaminate and dismantle the buil a final decision for how the buildings are to be remediated. The final must be evaluated and documented in the final remedial action ROD. (Com

N.)

Response: The OU3 final remedial action ROD will not be biased by the reached for the OU3 interim remedial action because decontamination and expected under all reasonable alternatives for remediation of OU3. The action does represent a decision for removal of the buildings as a source releases; however, the OU3 final remedial action ROD will document the use and disposition for the OU3 remediation wastes. This final decision will consider many issues and inputs, including the Fernald Citizen's

During the interim action, a limited quantity of material will be disposed before the OU3 final remedial action ROD is issued. This waste quantity compared to the overall volumes anticipated for the project and therefore a bias in the final disposition decision for the materials.

The interim action was proposed because DOE, as the lead agency for the responsibility to reduce risks to human health and the environment. Therefore, DOE is implementing an interim remedial action in accordance with the NCP to accelerate the cleanup process within OU3. The interim remedial action includes decontamination and dismantlement of contaminated buildings, equipment, within OU3 which are potential sources of contaminant releases to the environment.

OU3 Decision Summary (Final)

action is reasonable due to: (1) the early opportunity to implement cleanup, (2) the advanced state of facility deterioration and continued potential for (3) the resulting reduced exposures to site workers; and (4) the substantial benefit to the public from reduced maintenance costs. DOE has identified no future facilities, and therefore considers the removal of these facilities to be necessary to ensure the protection of human health and the environment. Some facilities support remediation activities and will be decontaminated and dismantled as part of the remediation sequencing, once they are no longer necessary.

The final decision for the disposal of OU3 remediation wastes will be made in the remedial action ROD. The public will have opportunities to contribute to the development of potential alternatives. Through Operable Unit Feasibility Study/Proposed Action Periods and ongoing public involvement programs, public involvement in the decision regarding disposal of remediation wastes is presently underway throughout the decision-making process.

Issue 11

The OU3 baseline schedule and budget estimate calls for the replacement of the current hourly workforce and is at odds with the Environmental Assessment findings of minimal socioeconomic impacts. (Comments K, L, N, Q R, and X.)

Response: The OU3 baseline is not inconsistent with the OU3 Proposed Action/Environmental Assessment. The current planning baseline has anticipated the onsite work from that of maintenance activities to remedial action. The transition is not anticipated to result in fewer jobs for an hourly workforce. The definition of the work from primarily managing the existing facilities (legacy wastes) to actively decontaminating and dismantling the site structures. Impact occurs for the salaried workforce, which is currently heavily involved in preliminary and detailed planning of the remediation projects. This work includes implementation activities, which could be expected to involve a higher percentage of workers.

The socioeconomic evaluation made in the OU3 Environmental Assessment is on the following: (1) it is the DOE's position that current on-site employment

where practical, for activities associated with environmental restoration and (2) DOE will help with the employee transition from production to re-development of a workforce transition management program that focuses on skill level classification, training programs, and transition foresight understanding that DOE will comply with all labor laws applicable in this was made that no net increase or decrease in the number of employees would result, as is stated in the OU3 Proposed Plan/Environmental Assessment

OU3 Decision Summary (Final)

Issue 12

Concern was expressed over the methodology for incorporating NEPA via CERCLA document (the Proposed Plan/Environmental Assessment). Additional comments expressed about the relationship between this Environmental Assessment and Environmental Impact Statement. (Comments H, T, and Y.)

Response: It is DOE's policy to integrate the requirements of NEPA whenever practical. The intent is to incorporate NEPA values in CERCLA similar levels of study are conducted, thereby meeting the requirements of CERCLA. However, it is not DOE's intent to make a statement about the level of NEPA to CERCLA activities.

As such, the Proposed Plan/Environmental Assessment was developed to meet requirements of both NEPA and CERCLA. The objective of both laws is to inform the action proposed and the Proposed Plan/Environmental Assessment requirements. To clarify many of the issues involved in the integration a roundtable meeting was held for members of the public on January 24, 1994. At the roundtable, both the Proposed Plan/Environmental Assessment and the EIS for remediation were discussed. The OU4 EIS includes a comprehensive assessment of impacts resulting from the leading remedial alternative for each operable unit. Subsequent operable units will perform cumulative assessments updating the

The OU3 Proposed Plan/Environmental Assessment was not identified in the EIS because this interim remedial action was decided upon after the cumulative impact analysis was formulated for the lead EIS. Before the interim remedial action, the leading remedial alternative for OU3 was decontamination and dismantling of buildings and structures in conjunction with a disposal decision. This alternative is to be implemented after the final remedial action ROD, is addressed in the cumulative impact analysis for the lead EIS. In addition, final disposition of OU3 remedial action will be addressed in the OU3 Feasibility Study/Plan (incorporating NEPA values) which will tie from the OU4 lead Environmental Assessment and will include the updated cumulative assessment relevant at that time.

Issue 13

A Finding of No Significant Impact (FONSI) should not be developed before comments are received on the Environmental Assessment. (Comments H, N,

Response: Early in the development of the plan for the interim remedial action, DOE prepared an Action Description Memorandum (ADM) to determine the appropriate level of NEPA documentation required for the project. Based on the ADM, a decision on whether an Environmental Assessment would be the most appropriate NEPA review for the project. An ADM is not required to be submitted for public comment or published in the Federal Register because it is an internal document prepared and used by DOE to determine the appropriate level of NEPA documentation required for the project. Information provided in response to questions at the January 5, 1994 public meeting was incorrect in indicating that the ADM had been published in the Federal Register.

comment and that the draft FONSI would be made available for a 30-day pu

OU3 Decision Summary (Final)

The purpose of an Environmental Assessment is to assess impacts to h and the environment and to determine whether to prepare an Environmental or issue a FONSI. This decision is made by DOE. For the interim remedi received on the Proposed Plan also represent comments received on the En Assessment. This responsiveness summary represents the summation of the comments and concerns and will be used in determining whether a FONSI is draft FONSI may be prepared early by DOE to facilitate the overall timel process.

Under certain limited and unusual circumstances, DOE regulations req proposed FONSI be issued for public review and comment before DOE makes determination on the FONSI (10 CFR 1021.322(d)). The unusual circumstan proposed action is or is closely similar to one which normally requires Statement; and (2) the nature of the proposed action is one without prec these circumstances apply for this action. Public hearings are held if environmental controversy concerning the proposed action or substantial the hearing (40 CFR 1506.6 (c)). As a result, DOE does not plan to hold hearing on the draft FONSI. However, if DOE does issue a FONSI for this available in the public reading room located at the PEIC in the JAMTEK B Hamilton-Cleves Highway, Harrison, Ohio 45030.

Issue 14

Risks associated with the interim action should be assessed before a the buildings begin. An accident scenario should be considered for the (Comments F and N.)

Response: A risk assessment was performed for the OU3 interim remed assessment is included in Appendices D, E, F, I and J of the Proposed Pl Assessment. This assessment used the EPA recommended CAP88-PC model to atmospheric dispersion of releases and also resultant radiation doses. based on NCRP 116 ("Limitation of Exposure to Ionizing Radiation", Natio Radiation Protection and Measurements, April, 1993). A major advantage is the capability to incorporate variables such as wind speed, mixing he patterns, various isotopes, and different exposure routes (inhalation, i exposure, and ingestion). Doses and associated risks to the public were a five mile radius, in one mile increments, and in 16 directions from th show that the risks to off-site residents would be well below regulatory guidance. Estimated risks to off-site receptors are very small.

A credible accident scenario was considered for this action. The ac considered assumes a rupture of the collection filter used during the de activities. This filter would be the collection point for all airborne the building. Release of such collected contaminants over a 24-hour per greater hazard to off-site residents than an accident scenario involving A credible accident scenario involving the storage facility is anticipat because: (1) most surface contaminants that could become airborne and b site residents would have been removed through decontamination prior to materials after decontamination would be containerized in boxes or drums

OU3 Decision Summary (Final)

the storage configuration for the materials would be improved by storage

storage facility.

Impacts associated with a tornado striking the site have not been quantified because the material located within the interim storage facility would have been decontaminated and many of the materials and waste streams would be contained. Potential impacts to human health and the environment of a tornado striking the site are anticipated to be less than those associated with the impact of a tornado striking an existing production facility. Even if a facility had been decontaminated, it would still exist within and around duct work, process lines, and process buildings. Proposed new storage facilities are designed to comply with current standards that are adequate to address normal and severe weather conditions. None of the existing facilities can be considered tornado-resistant, but the early removal of site structural materials would be expected to result in a lower risk association with tornado events.

Asbestos contamination is categorized by friable and non-friable asbestos. Friable asbestos defines the likelihood of asbestos fibers being released. Asbestos containing materials that are friable will be remediated under full enclosures to provide containment and remove all airborne fibers. For these reasons, asbestos fiber emissions will be controlled during remediation. For non-friable asbestos materials, engineering controls are used during remediation to prevent airborne asbestos releases. The site has an extensive characterization program to identify and locate the friable asbestos-containing materials. For the reasons stated above, asbestos modeling has not been performed on this site and will not be performed.

In summary, the results of the risk assessment for both the normal operation and accident case show that the on-site workers and the off-site residents will be protected by the action. Additionally, during implementation of the action, monitoring will be performed to assure that any releases resulting from the action remain within acceptable limits. Monitoring data that results from the interim remedial action will be made available to the public on a timely basis through placement in the public reading room, and updates in fact sheets and monthly reports.

Issue 15

A concern was expressed that historical risk data that is used in the Plan/Environmental Assessment is unreliable. Why were airborne concentrations multiplied by a factor of 10 for the risk assessment? (Comments H and N.)

Response: The historical results presented in the 1987 emissions re-assessment were not used to estimate the discharges or risks associated with the remedial action because separate calculations were developed. The 1987 report, however, contained analytical data for samples of airborne contaminants that were accumulated during production operations; this data was used to estimate the ambient concentrations of significant radionuclides within the buildings. The 1987 report also relied on these raw analytical data, but utilized a different method for determining emissions from the data. The approach used for the 1987 assessment was not practical for predicting emissions and risks associated with the proposed remedial action.

OU3 Decision Summary (Final)

The proposed remedial action and dismantlement project because it estimated production stack emission rates for the production of uranium products.

In developing the risk assessment for the OU3 interim remedial action, monitoring data were used to confirm the radioactive isotopes present and the relative concentrations for six major production facilities. Air sample data for these six facilities are presented in Appendix B of the Proposed Plan/Environmental Assessment and representative airborne radioactivity measurements, were utilized to estimate levels for

isotopes. The risk assessment for the OU3 Proposed Plan/Environmental Assessment calculated the air concentrations for each of the isotopes and also 18 radionuclides with short half-lives.

Typical work zone airborne concentrations that could be expected in during decontamination and dismantlement activities were multiplied by a factor of ten and inserted into the CAP88-PC model, in order to conservatively assess airborne levels, which could be created by the activities. Although speculative, airborne concentrations by a factor of ten allowed the assessment to consider the potential conditions resulting from decontamination activities with the process of removing surface contamination through high pressure washing, other techniques is expected to increase airborne contaminant levels in evidenced through the Plant 7 dismantling, but not by a factor of 10. It will be implemented to collect, control, and maintain airborne levels as accordance with the principles of ALARA (as low as reasonably achievable).

Issue 16

DOE, as the lead agency, should not be allowed to prepare risk assessment estimate impacts from proposed actions due to potential conflicts of interest. An administrative agency may not delegate its public duties to private entities whose objectivity may be questioned on grounds of conflict of interest.

Response: The FEMP performs its own risk assessments because it is required to under the Consent Agreement and the Amended Consent Agreement between DOE and EPA. Pursuant to Executive Order 12580, DOE is the lead agency for response activities at the FEMP. As the lead agency, DOE is required to protect the interest of the public. EPA's policy is that under certain circumstances a responsible party may conduct risk assessments. In accordance with the Consent Agreement, DOE as the lead agency and its contractors are required to prepare risk assessments to support all RI/FS documentation.

OU3 Decision Summary (Final)

Issue 17

Commentors expressed that in the past, significant deficiencies have been identified in the site health and safety plan for work performed at Fernald and that these are inconsistent with the assumptions in the Proposed Plan/Environmental Assessment. The adequacy of safety standards and practices. Additionally, the Proposed Environmental Assessment estimates approximately 420 injuries as a result of the work should be performed within the principles of ALARA. (Comments H, L)

Response: DOE's responsibility is to ensure that all work complies with regulatory requirements, and health and safety plans. Any deficiencies in the health and safety plan would certainly be addressed and corrected before the interim remedial action is performed. DOE will ensure compliance with all health and safety regulations and the principles of ALARA in conducting all activities at the FEMP, including the implementation of safety plans, to ensure protection of workers and the public.

Since work will only be performed under approved health and safety plans and safety deficiencies have been incorporated into the assumptions of the risk assessments. Additionally, all training programs associated with the approved safety plans to perform the work are assumed to be in place.

The Proposed Plan/Environmental Assessment calculated 420 potential injuries and approximately 5.7 million person-hours of work during the 16 years of the remedial action based on statistics from the Department of Labor for annual

associated with heavy construction activities. The decontamination and OU3 buildings and structures are categorized as heavy construction activities. The number of injuries from the Department of Labor statistics, the number of injuries at the Fernald site, DOE, and the FEMP have been calculated for the last 6 years from 1993. Using the projected personhours required for the 16 years of the action and the statistics based on Fluor Daniel projects for heavy construction, an estimated 144 injuries is calculated. For all DOE sites and the FEMP sites, there are 87 and 81 injuries, respectively. The Proposed Plan/Environmental Action Statement calculated for the DOE and FEMP are based on operation statistics, and work conditions with work occurring under an approved health and safety

Issue 18

The Assistant Secretary of Environmental Restoration and Waste Management, Thomas Grumbly, must sign the Record of Decision for the Interim Remedial Action at the Fernald Site Manager (Mr. Hamric), the U.S. EPA Director, and the Regional Administrator for the EPA, Region V (Mr. Adamkus) or his designee. In addition, Mr. G. G. Secretary for Environmental Management, will send a letter of concurrence with the (Comment H and J.)

Response: The Record of Decision for the Interim Remedial Action is a document binding both DOE and EPA to implementation of the selected action. Signatures on the OU3 interim remedial action ROD will consist of the Assistant Secretary for Environmental Restoration (Mr. John Baublitz) and the Regional Administrator for the EPA, Region V (Mr. Adamkus) or his designee. In addition, Mr. G. G. Secretary for Environmental Management, will send a letter of concurrence with the

OU3 Decision Summary (Final)

Field Office Manager supporting the Operable Unit 3 Interim Remedial Action of Decision will be an enforceable document for this site once it is signed and as such, no other signatures are required. Additional signers and/or not result in additional legal enforceability and potentially could delay action. DOE does anticipate that a concurrence letter will be submitted indicating State support for the OU3 interim remedial action ROD.

Issue 19

A number of commentors concur with the selected alternative to decontaminate and dismantle the former production area at the Fernald site. The commentor is concerned about the time that the site starts major field action. (Comments A, B, D,

Response: DOE believes it has acted in the best interests of the public environment in proposing this interim remedial action and has been responsive to concerns about the speed of the cleanup actions at the site. This action is to address public concerns over the apparent lack of progress towards future actions similar to that expressed at the January 12, 1993 public meeting on EE/CA, Removal Action 27. In addition, the interim remedial action itself is a response to the public's request for accelerated remediation of the site. DOE appreciates the public's request and looks forward to continuing to work with the public in an open and productive manner as the cleanup proceeds in the most expeditious manner possible.

A.5 Summary of Responsiveness to Public Comments

This section represents a summary of issue responses that have resulted in a revision to the OU3 interim remedial action ROD, or in significant additions to DOE to the public during the implementation of the interim remedial action.

Revisions/Commitments

Maximize utilization of existing structures at the site for the interim storage and staging to avoid construction of new structure for these purposes. Compliance with this request hinges on the ability of the site to remove in the near-term significant quantities of waste currently in storage in site structures and to comply with appropriate storage requirements for the remediation wastes.

The interim remedial action ROD provides additional commitment with respect to this issue. See discussion in the Declaration (Description of the Selected Remedy); page 19; and page 33.

OU3 Decision Summary (Final)

Guarantee that interim storage does not inadvertently become long-term storage. Since many of DOE's own orders and various regulations and agreements are in place to assure this cannot happen, it is unlikely that storage could become long-term storage; however, this is a concern of the public and is recognized as a sensitive issue which is addressed in the interim remedial action ROD.

The interim remedial action ROD provides additional commitment and explanation with respect to this issue. See discussion in the Declaration (Description of the Selected Remedy); page 19; and page 33.

Provide the local public with regular air monitoring information updates representing the impacts of ongoing remediation projects. The format for this information transfer would be developed with members of the public to comply with their request and will be addressed in the upcoming revision of the Community Relations Plan.

Interim remedial action ROD language is not affected by this commitment.

DOE concurs that continued emphasis on removal of waste from the site is important to allow the interim remedial action to proceed as planned. DOE is committed to expediting this process.

Interim remedial action ROD language is not affected by this commitment.

DOE commits to maximize the public involvement in the environmental restoration process through information in the public reading room, updates in fact sheets and monthly reports. Specific additional public involvement initiatives are also planned during the ROD/RA and implementation phases of the project and will be addressed in the revision of the Community Relations Plan.

Interim remedial action ROD language is not affected by this commitment.

The interim remedial action ROD represents the fulfillment of the commitment to expedite the remediation of the FEMP, and specifically the ROD/RA.

Interim remedial action ROD language is not affected by this commitment.

A.6 Summary of Comments Not Resulting In Issues

During the public comment period for the proposed interim remedial action, DOE received several comments which were either not directly related or relevant or were of a more minor nature. Response to these unrelated comments came within the regular FEMP programs for public involvement and education.

below were not considered to be significant comments with respect to the and are addressed below.

Commentor E questioned the scope of Alternative 2. The commentor in assumes the decontamination actions under Alternative 2 and 3 differ in

OU3 Decision Summary (Final)

scope. The commentor's proposal would generate significant volumes of waste without removing the OU3 structures. In addition, given the processing occurred at this site for 37 years, it would be virtually impossible to decontamination to the extent that allows an entire facility to be "free reason, this option was not examined.

Commentor G indicated that monitoring and maintenance are not mentioned in the scope of the preferred alternative. This specific information was not in the assessment sheet, but is contained in the description of the alternative within the Plan/Environmental Assessment. Additionally, Removal Action 17, upon which the operation of interim storage facilities will be based, requires continuous maintenance.

Commentor H requested that accurate real-time monitoring techniques be used. Real-time monitoring, which would provide quantitative results on a demand basis, is not currently possible when monitoring for airborne uranium and thorium. Due to technology limitations, "real-time" monitoring for airborne uranium and thorium will not be available in the near future. This is due to the short-lived radionuclides present in the ambient air, which interfere with accurate alpha radiation measurements.

Commentor L questioned the reference to the average annual dose to a member of the public of 300 millirem per year. The 300 millirem dose per year reference is the average person living in the United States receives each year from natural background radiation, which is unrelated to the interim remedial action. This apparent misunderstanding was clarified with the commentor.

Commentor N requested information as to the environmental and health impacts associated with the Central Storage Facility if it becomes a long-term off-site storage facility. DOE has stated in responses to this issue that these facilities will be considered as long-term or permanent storage facilities, and therefore a full environmental assessment is to be performed.

Commentor N questioned the worker exposure levels estimated in the Plan/Environmental Assessment in comparison to the annual average exposure to the public. The annual doses estimated for workers from the interim remedial action are in addition to average annual exposures from natural and background radiation.

Commentor N questioned the impacts of funding constraints on the interim remedial action. Budget cuts by Congress could impact the interim action by limiting the number of structures and facilities to be remediated before the final remedial action. The impact of budget cuts would reduce the quantity of materials placed in the interim storage facilities and once the final remedial action decision is made, these materials will be managed accordingly.

OU3 Decision Summary (Final)

OU3 Decision Summary (Final)

APPENDIX B

WRITTEN AND ORAL COMMENTS

OU3 Decision Summary (Final)

Page left intentionally blank.

OU3 Decision Summary (Final)

APPENDIX B

WRITTEN AND ORAL COMMENTS

The written comments received during the comment period and verbal comments during the January 5, 1994 public meeting are contained in this appendix comment letter, oral statement, and submitted attachments are referenced identifier as noted in Table B-1. These comments are a formal part of the Record for this action.

OU3 Decision Summary (Final)

TABLE B-1 Written and Oral Comments Received

Letter	Commentor
WRITTEN COMMENTS	
A	Kenneth J. Wurzelbacher, Hamilton, Ohio
B	Carl A. Woycke, Harrison, Ohio
C	Maggie Merritt, Harrison, Ohio
D	Paul Ruttencutter, Hamilton, Ohio
E	Laura Jane Whitesides, Las Vegas, Nevada
F	Lawrence L. Stebbins, Hamilton, Ohio
G	Edwa Yocum, Harrison, Ohio
H	Vicky Dastillung, Vice President of Fernald Residents for Environmental Safety and Health (FRESH), Hamilton, Ohio

- I Pam Dunn, Harrison, Ohio
- J Lisa Crawford, President of FRESH, Harrison, Ohio
- K Karen Bell, President Crosby Elementary PTA, Harrison, Ohio
- L Norma Nungester, Harrison, Ohio
- M Holly Schick, State Director of the Ohio SBDC, Columbus, Ohio
- N Unsigned letter submitted by the Fernald Atomic Trades & Labor Council, Ross, Ohio
- O Graham E. Mitchell, Project Manager, Ohio Environmental Protection Agency, Dayton, Ohio
- P Maud Naroll, State Clearinghouse Coordinator, Department of Administration, Carson City, Nevada

ORAL COMMENTS AND ATTACHMENTS

- Q Oral Comment by Bob Tabor
 - R Oral Comment by Jerry Monahan
 - S Submitted Attachment to Bob Tabor's Oral Comment
 - T Oral Comment by Vicky Dastillung
 - U Oral Comment by Robert Richardson
 - V Oral Comment by Pam Dunn
 - W Oral Comment by Lisa Crawford
 - X Submitted Attachment to Robert Richardson's Oral Comment
 - Y Oral Comment by Richard Miller
-

OU3 Decision Summary (Final)

Comment A

COMMENT SHEET

DOE is interested in your comments on the cleanup alternatives being considered in the Proposed Plan/Environmental Assessment for Interim Remedial Action of Operable Unit 3, including the preferred alternative to decontaminate and dismantle the production area at the Fernald site. Please use the space provided below for your comments, then fold, staple or tape, and mail this form. We must receive your comments on or before the close of the public comment period on January 15, 1993. If you have questions about the comment period, please contact Ken Morgan, Public Information Officer at Fernald, at (513) 648-3131.

Name: _____

Address: _____

City: _____ State/Zip: _____

Phone: _____

MAILING LIST ADDITIONS:

Please add my name to the Fernald Mailing List to receive additional inf
cleanup progress at the Fernald Environmental Management Project:

YES_____

OU3 Decision Summary (Final)

Comment B

COMMENT SHEET

DOE is interested in your comments on the cleanup alternatives being con
Proposed Plan / Environmental Assessment for Interim Remedial Action of
Unit 3, including the preferred alternative to decontaminate and dismant
production area at the Fernald site. Please use the space provided belo
comments, then fold, staple or tape, and mail this form. We must receiv
comments on or before th close of the public comment period on January 7
you have questions about the comment period, please contact Ken Morgan,
Public Information Officer at Fernald, at (513) 648-3131.

Name: _____

Address: _____

City: _____ State/Zip: _____

Phone: _____

MAILING LIST ADDITIONS:

Please add my name to the Fernald Mailing List to receive additional inf
cleanup progress at the Fernald Environmental Management Project:

YES____

NO____

OU3 Decision Summary (Final)

Comment C

COMMENT SHEET

DOE is interested in your comments on the cleanup alternatives being con
Proposed Plan / Environmental Assessment for Interim Remedial Action of
Unit 3, including the preferred alternative to decontaminate and dismant
production area at the Fernald site. Please use the space provided belo
comments, then fold, staple or tape, and mail this form. We must recei
comments on or before the close of the public comment period on January
you have questions about the comment period, please contact Ken Morgan,
Public Information Officer at Fernald, at (513) 648-3131.

Name: _____

Address: _____

City: _____ State/Zip: _____

Phone: _____

MAILING LIST ADDITIONS:

Please add my name to the Fernald Mailing List to receive additional inf
cleanup progress at the Fernald Environmental Management Project:

YES____

NO____

OU3 Decision Summary (Final)

Comment D

COMMENT SHEET

DOE is interested in your comments on the cleanup alternatives being con
Proposed Plan / Environmental Assessment for Interim Remedial Action of
Unit 3, including the preferred alternative to decontaminate and dismant
production area at the Fernald site. Please use the space provided belo
comments, then fold, staple or tap, and mail this form. We must receive
comments on or before the close of the public comment period on January
you have questions about the comment period, please contact Ken Morgan,
Public Information Officer at Fernald, at (513) 648-3131.

Name: _____

Address: _____

City: _____ State/Zip: _____

Phone: _____

MAILING LIST ADDITIONS:

Please add my name to the Fernald Mailing List to receive additional inf cleanup progress at the Fernald Environmental Management Project:

YES____

NO____

OU3 Decision Summary (Final)

Comment E

COMMENT SHEET

DOE is interested in your comments on the cleanup alternatives being con Proposed Plan / Environmental Assessment for Interim Remedial Action of Unit 3, including the preferred alternative to decontaminate and dismant production area at the Fernald site. Please use the space provided belo comments, then fold, staple or tape, and mail this form. We must receiv comments on or before the close of the public comment period on January you have questions about the comment period, please contact Ken Morgan, Public Information Officer at Fernald, at (513) 648-3131.

Name: _____

Address: _____

City: _____ State/Zip: _____

Phone: _____

MAILING LIST ADDITIONS:

Please add my name to the Fernald Mailing List to receive additional inf cleanup progress at the Fernald Environmental Management Project:

YES____

NO____

OU3 Decision Summary (Final)

Comment F

3944 Silax Dr.
Hamilton, OH 45013
January 7, 1994

Department of Energy
Attention: Mr. Hamric
Fernald Environmental Management Project
P.O. Box 398705
Cincinnati, Ohio 45239-8705

After reviewing the available information regarding the early dismantling of the production buildings at Fernald. I would like to you some of my concerns as a resident who lives downwind of the proposed activity.

The information sent to my home for review stated that the risk to local residents was small. Is that risk known, and how was it calculated. It is not known, as a resident I would like to ask that any plan for dismantling include air pollution modeling which will show what the risk to my family and neighbors is. I would like to know if there have been any air pollution models run which show the distribution of the contamination that will be caused as a result of these activities. Not screening type models, but specifically, comprehensive models which take into consideration terrain, wind speed, weather conditions, mixing height and the deposition patterns.

Only radiological contamination was mentioned in the literature sent to the public. One of my major concerns is the potential threat of asbestos contamination. Has any modeling specifically been done for this, either screening type or comprehensive.

One of the important considerations for risk based calculation is that the Elda Elementary School, the Ross Middle School, and the Ross Senior High School are all in the direction of prevailing wind pattern.

I feel that the plan to perform early dismantling of the production buildings is not a bad idea. However, I would like to request that risk

OU3 Decision Summary (Final)

Comment F (Cont.)

based calculations be applied in conjunction with airborne contamination models: and the actual risk quantified, prior to any dismantling of production buildings.

I make this request in good faith, and trust it will be received as a good faith effort to improve the implementation of the proposed action

and that no effort will be made by any party to affect my employment the FEMP.

Respectfully yours,

Lawrence L. Stebbins

OU3 Decision Summary (Final)

Comment G

COMMENT SHEET

DOE is interested in your comments on the cleanup alternatives being con
Proposed Plan / Environmental Assessment for Interim Remedial Action of
Unit 3, including the preferred alternative to decontaminate and dismant
production area at the Fernald site. Please use the space provided belo
comments, then fold, staple or tape, and mail this form. We must receiv
comments on or before the close of the public comment period on January
you have questions about the comment period, please contact Ken Morgan,
Public Information Officer at Fernald, at (513) 648-3131.

Name: _____

Address: _____

City: _____ State/Zip: _____

Phone: _____

MAILING LIST ADDITIONS:

Please add my name to the Fernald Mailing List to receive additional inf
cleanup progress at the Fernald Environmental Management Project:

YES____

NO____

OU3 Decision Summary (Final)

Comment H

COMMENTS ON THE OU 3 PROPOSED PLAN / EA FOR THE INTERIM
REMEDIAL ACTION

* The terms "interim storage" and "temporary storage" can mean very different things to different people. The public needs and deserves a guarantee that the "interim storage" will not be allowed to become "permanent" because of schedule slippage or funding problems. An agreement that spells out how long "interim" may be and how the public can enforce this is sorely needed. It should be signed by top officials who have the power to sign such a guarantee.

* Be sure that proceeding with this IROD does not bias the ROD or eliminate options, such as off-site vs. on-site storage.

* Because the annual Environmental Monitoring report is issued so long after the monitoring is actually done, the public deserves to see the environmental monitoring results often, perhaps monthly, so they can be assured that the OU 3 IROD activities are not affecting the community's air, water, or environmental quality.

* Also, the monitoring done specifically for the IROD should be made easily available to the public. An update at RI/FS meetings would be nice. Fast turnaround on analyzing samples is important so that any problems will be detected promptly enough for mitigating measures to be taken.

* Developing accurate real-time monitoring should be a DOE priority.

* On page 1-1 and 1-2 it states that it is DOE policy to incorporate NEPA values into the RI/FS process "wherever practical". Where was it not practical? How does the general public know that all of NEPA was really incorporated in the document if they aren't NEPA experts?

* How does an EA on an OU relate to the RI/FS EIS being done for the whole site?

* The terminology used is not exactly up-front and honest with the public. The fact is that the "interim" ROD is actually a "final" ROD for the portion of OU 3 that dealt with the buildings. Once the IROD is chosen and buildings come down, we won't be able to change that. It's final.

* A FONSI should not be written before the public and regulators have had the opportunity to comment on the EA.

OU3 Decision Summary (Final)

Comment H (Cont.)

* Throughout the document it says that data on contaminants is still being collected. Is there much potential for surprises to pop up as more data is collected?

* While long-term effectiveness is not required to be considered for an IROD, it is important to the community that this be considered as much as possible. After all it was a lack of considering the long-term effects of activities at the FEMP that got us in this mess to start with.

* On page 4-10 it states that "airborne concentrations of contaminants, on the average, are assumed to increase by a factor of ten due to remedial actions." Why a factor of 10?

* The principle of ALARA should be emphasized to protect the workers and the community as much as possible.

* The document was refreshingly readable and included many short but informative statements that explained "why" things were being done.

Submitted by
Vicky Dastillung
3501 Klenk Place
Hamilton, OH 45013
(513) 738-5535

OU3 Decision Summary (Final)

Comment I

January 28, 1994

To: Mr. Ken Morgan
Fernald Environmental Management Project
U.S. Department of Energy
Fernald, Ohio

RE: Comments on the Proposed Plan/Environmental Assessment - OU 3

While I agree in principle with the early implementation of remediation 3. I am concerned with interim storage discussed in this document with future considerations being discussed in regards to the possibility of permanent storage on site of this material. DOE's past history of interim storage is anywhere from one, two, twenty-five to indefinite years. At the meeting Monday January 24, 1994 it was expressed that this storage facility was more-or-less to be a staging facility; this is not the terminology in the PP/EA document for the Interim Record of Decision, there in a different place. It is therefore requested, strongly and urgently requested, that the Interim ROD language be modified to state that this temporary storage will not be in existence once the remediation of OU 3 is eventually completed and the decommissioning and demolition of this temporary storage facility be included in the final ROD for OU 3. I am also concerned with the costs associated with the construction of this interim storage facility, that a considerable sum of funds will be expected for a structure that will be destroyed in a short period of time. It is unclear if there are other alternatives which may be suitable for the purpose of temporary/interim

storage or staging, whichever its intentions; perhaps the use of stru currently of site for short-term while the issue of possible permanen site storage is addressed and the funds intended for the interim faci applied to this. I am also still waiting for an answer to my questio January 24, 1994 meeting pertaining to the differences in cost for th temporary facility as presented in two DOE documents, the site develo (small) book states \$34 million and volume two the Gold book for OU 3 \$8 million; I would like clarification of this variance. Again I wis reiterate the need for wording modification to the OU 3 PP/EA and Int stating that this temporary storage facility will be included in the remediation of OU 3 is eventually completed and the decommissioning a demolition of this temporary storage facility will be included in the ROD for OU 3.

Sincerely

Ms. Pam Dunn
7781 New Haven Rd.
Harrison, Ohio 45030

cc: F.R.E.S.H. Inc
Mr. John Applegate, chair, Citizens Task Force
file

OU3 Decision Summary (Final)

Comment J

January 30, 1994

RE: Public Comments O.U
3 Proposed Plan

Mr. Ken Morgan
Public Relations
U.S. Department of Energy
P.O. Box 398705
Cincinnati, OH 45239-8705

Dear Mr. Morgan:

The purpose of this letter is to provide official comments on the Operable Unit 3 Proposed Plan:

1. The Assistant Secretary of Env. Rest. & Waste Management, Mr. Thomas Grumbly, must sign the final IROD; along with the Fernald Site Manager (Mr. Hamric); U.S. EPA Director, President of FERMCO and also an added letter of concurrence from the Ohio EPA.
2. The public must have a guarantee that waste storage is interim and that the long-term plan for waste is made in a timely manner. Interim must be defined in number of years.
3. There should be continuous monitoring buildings as they are torn down and the results should be made available in a timely fashion.

4. The public must be involved in the long-term storage and disposal planning phase. They must also be kept apprised of situation on a regular basis. They must be allowed to see the spec's of interim-storage plans and ideas. As each O.U. waste storage issue arises, they must be added together and then work toward the long-term plan for waste storage & disposal.
5. Final permanent storage facility must be that, and not the interim-storage site. One cannot become the other -- they must be totally separate of one another.
6. Any documents relevant to this O.U. that are placed in the Administrative Record or the Reading Room, the community must be notified and afforded the opportunity to comment on them, if appropriate.
7. DOE/FERMC0 must show how this will save money and time. They must share their plans for D & D as we move through the process.
8. DOE/FERMC0 must look at the long-term waste plan before it can even think about interim-storage. It should be called "interim" until it's deemed "long-term" & "permanent"! They must define how long "interim" really is -- with a deadline or proposed deadline. They must re-evaluate at that time, with

OU3 Decision Summary (Final)

Comment J (Cont.)

community input, for the reasons as to why it's longer or there's no long-term plan as of yet.

9. The community must and will be walked through this process. This must be guaranteed. Roundtables should be held as future plans or updates occur.

If you have questions about these comments, please contact me as soon as possible. I look forward to seeing your official comments with regard to these attached comments.

Sincerely,

Lisa Crawford
President, F.R.E.S.H., INC.

LC/eac

cc: files

OU3 Decision Summary (Final)

Comment K

Crosby Elementary School PTA
8382 New Haven Rd.
Harrison, Ohio 45030
Karen Bell, President

January 4, 1994

Mr. K. L. Morgan
Public Information Officer
DOE Field Office, Fernald
U.S. Department of Energy
P.O. Box 398705
Cincinnati, Ohio 45239-8705

Dear Mr. Morgan:

The members of Crosby Elementary PTA's Executive Board and Crosby Elementary School's staff, which are members of the PTA, have read and discussed the information presented in the "Fact Sheet - Decontamination and Dismantlement of Buildings and Structures at Fernald, dated December 1993" and the "Proposed Plan/Environmental Assessment for Interim Remedial Action of Operable Unit 3".

We are submitting our comments and concerns as an attachment to this letter. We are submitting them after the specified public comment period closing date of January 7, 1994, as we were informed that the public comment period was extended for 30 days as announced at the public meeting held on January 5, 1994.

The PTA Board has taken the position that the PTA's responsibilities and actions are based in representing the issues of Parents and Teachers out of concern for our children and students. Because of the proximity of the school to the Fernald Site, Crosby Elementary School's PTA would like to have an informed membership. The PTA would like DOE and FERMCO to maintain community relations with our school membership and their families.

The Board has adopted the following position.

"In general, the Crosby Elementary School PTA supports the clean-up effort at Fernald and the concept the clean-up schedule could be improved.

In adopting this position the Board has tried to maintain sensitivity to the fact that the different alternatives could affect job and financial security of families at our school. This affect could in turn be impacted on the children at our school.

Sincerely,

Crosby Elementary PTA
Karen Bell, President

Comment K (Cont.)

Attachment:
Crosby Elementary PTA, January 4, 1994

COMMENT SHEET

Would the required information on effects to personal health and environment be available for the areas to be demolished ahead of the site RI/FS. Could any contamination be brought out of the site. If so what additional information does RI/FS provide.

Would limits be established and monitored (air and water) at the work area boundaries. How are limits established, for adults or children. The school generally is not downwind or downstream of Fernald. Many of the students however live in the trailer park south-east of Fernald.

Lead-paint has been shown to be dangerous for children. Do you monitor for lead. Could construction work increase this hazard. Could it be brought off-site.

Would the tearing down of the buildings affect where hazardous material is stored.

Would the start of demolition in any way affect the outcome of the RI/FS as far as continuing to store construction waste on site. The promise has been to return the site to a clean area.

There have been articles in the paper that land in our area has been looked at for storage of waste. Is this true. That seems like a breach of promise.

Would the traffic be increased affecting the school bus routes.

Would construction traffic going off-site be monitored to keep roads clean from mud spreading contamination.

How will it affect the jobs of our parents. Will there be job loss affecting the financial situation of families and students at our school. Will there be stressful home situations created affecting students at school.

Fernald receives national attention. Would the clean-up effort attract any violence to the area. The site has had bomb threats in the past.

Although Fernald is in our school district, it receives no gain of school tax. No additional support appears to come from the construction phase. Could DOE/Fernald financially assist the school in hook-up to the new public water system?

OU3 Decision Summary (Final)

Comment L

COMMENTS ON PROPOSED PLAN/
ENVIRONMENTAL ASSESSMENT FOR
INTERIM REMEDIAL ACTION
OF OPERABLE UNIT 3

Norma J. Nungester
8574 Mt. Hope Road
Harrison, OH 45030

February 2, 1994

Page 5-5

5.2 Preferred Alternative

I have serious reservations about storage under tent-like structures of drums of mixed and hazardous waste and do not believe it is stable or sturdy enough for weather conditions. While interim action is not supposed to address long-term, it must be strong enough to withstand weather conditions such as heavy snow, strong winds, and rainfalls. All of which can and do occur in our area.

Since the storage location is northeast of the production area, we could have drums exposed with any emissions travelling via the prevailing winds. If your designed water collection system overflows, as the current water retention system has been known to do, clay or till underneath may serve as a pathway or conduit for contaminants to the south and/or east where there is less or no clay or till to protect the aquifer and through any cracks contained therein.

While the preferred alternative may provide the best alternative of those considered, and it sounds good in theory or in words, what about two or three years hence when these barrels are rusting and leaking mixed and hazardous waste onto and into the ground and the air? The K-65 silos were cracked and leaking within a few years, although they were supposedly designed to last 25 years and were made of concrete. Barrels of thorium were found falling apart and leaking in the mid 1980's after being re-packed in the 1970's.

Is this in compliance with CERCLA? How about NEPA? Are you permitted to store radionuclides over an aquifer? Even for a so-called few years?

Health effects: General Public

Please do not compare it to an average individual in the United States receiving an annual radiation dose of 300 millirem. Our natural background in the Fernald area before FEMP was constructed was two parts per million.

OU3 Decision Summary (Final)

Comment L (Cont.)

Preferred Alternative
Operable Unit 3

Norma J. Nungester
February 2, 1994

People have to live with natural background, but some of these are man-made contaminants, and many do not naturally occur in this area (thorium comes to mind). Residents would not have come in contact with them via air, water, or inhalation were it not for the FEMP facility being located in the Fernald area.

If a person has received a dose year after year after year, from naturally occurring and manmade radionuclides, your mere 300 millirem may be the cumulative amount that puts him in the high-risk category.

We, of course, have no way of knowing this since the DOE refused to do or disclaimed health effects studies in the past.

Health effect: Workers

When the buildings are dismantled, or in the process, where are these workers to go? Are they expected to be out of doors for eight hours a day.

The cleaning and dismantling should be done by experienced Fernald Atomic Trades Council workers who have worked with these contaminants throughout the years; not people experienced in only building and dismantling and cleaning of some hazardous contaminants.

The contractors should not be allowed to order workers to open cylinders or drums, as they have done in the recent past, which endanger their lives. The FEMP safety record must improve. The demolishing of good equipment such as fire engines to fill scrap shipments must stop.

1(Fact Sheet for the proposed Plan/Environmental Assessment for Interim Remedial Action)

OU3 Decision Summary (Final)

Comment M

DOE is interested in your comments on the cleanup alternatives being Proposed Plan / Environmental Assessment for Interim Remedial Action Unit 3, including the preferred alternative to decontaminate and disassemble production area at the Fernald site. Please use the space provided for comments, then fold, staple or tape, and mail this form. We must receive comments on or before the close of the public comment period on January 11, 1994. If you have questions about the comment period, please contact Ken Morga, Public Information Officer at Fernald, at (513) 648-3131.

Comment attached. January 5, 1994

Name: HOLLY SCHICK, STATE DIRECTOR of the OHIO SBDC

Address: OHIO DEPARTMENT OF DEVELOPMENT
77 S. HIGH STREET, 28th FLOOR

City: COLUMBUS

State/Zip: OHIO 43266-0101

Phone: (614) 466-2711 or 1-800-848-1300

MAILING LIST ADDITIONS:

Please add my name to the Fernald Mailing List to receive additional cleanup progress at the Fernald Environmental Management Project:

Yes____

No:____

OU3 Decision Summary (Final)

Comment M (Cont.)

George V. Voinovich
OHIO SMALL BUSINESS DEVELOPMENT CENTERS
Building Excellence in Enterprise

Go

Donald E. Jakeway
Development Director

TO: Ken Morgan, the DOE Public Information Officer at Fernald

January 5, 1994

This comment is in response to DOE's request for public comments regarding alternatives. The following statement serves as a notification to the Ohio SBDC wishes to participate and assist in decision-making process of the Fernald site.

The Ohio Small Business Development Center (SBDC), under the Ohio Department of Development and in partnership with the Small Business Administration, provides training and technical support of Ohio small businesses. The Ohio SBDC established government procurement network program called Ohio Procurement Assistance (OPTA). The OPTA outreach centers provide prime contract assistance to Ohio businesses through counseling, training and educational advocacy initiatives.

The Ohio SBDC office was contacted by a consortium of Ohio based business information on subcontracting opportunities related to the clean up at DOE Fernald Site. Our office has begun to research the potential economic impact of this massive remediation project that DOE oversees:

We wish to take the lead in developing a statewide economic strategy as it relates to the potential impacts of the DOE environmental management state. This initiative would establish a mechanism to coordinate local communities to assist in the following process:

developing a network to share information and resources, maximize

statewide opportunities for the enhancement of:

- public awareness
- small business contracting opportunities
- economic impact
- safety education and training
- public/private alliances
- innovative technology and research
- reuse of property, (etc.)
- environmental restoration

as it relates to opportunities at DOE sites within Ohio

addressing the economic impact of potential contracting opportunities
businesses and businesses throughout the State of Ohio

addressing the environmental needs of the immediate areas impact

An Office of the Ohio Department of Development

77 S. High St., P.O. Box 1001, Columbus, Ohio 43266-0101 (614) 466-

OU3 Decision Summary (Final)

Comment M (Cont.)

Page 2

The Ohio SBDC recognizes the tremendous magnitude of the problem facing
create an atmosphere of cooperation, trust and understanding in order
and local economies within the state and to assist DOE in reaching it

In response to DOE's invitation to comment on the alternatives being
of Operable Unit 3 at the Fernald Environment Management Project, the
provide information to the public on the proposed initiatives and con
Fernald site. We want to work with the DOE Fernald office on area ap
development, technology reinvestment, workforce a community transitio
phases of remediation process.

The Ohio SBDC intends to work with the DOE site personnel for Op
and in accordance with the cleanup goals and schedule. The Ohio SBDC
the DOE Office of Facility Transition and Management, EM-60 as the Oh
development assistance (see attachments from a 1994 DOE Handbook)

In summary, we wish to assist in making this remediation project
economically and environmentally; and one that will provide DOE with
remediation projects. We look forward to hearing from you an develop
determination for achieving success.

Holly I. Schick, State Director
Ohio Small Business Development Center
Ohio Department of Development

OU3 Decision Summary (Final)

Comment M (Cont.)

U.S. Department of Energy

Economic
Development Funding,
Assistance, and
Points of Contact

FY 1994 Handbook

OU3 Decision Summary (Final)

Comment M (Cont.)

PREFACE

This handbook provides information on federal and state economic development assistance, and points of contact. It is for planning purposes only solicitation.

As with any reference guide, revisions will be necessary as condition factors come to light. Of immediate concern to the economic development budget appropriation figures which affect economic development funding. These figures should become available by November 1993, and will be included in this document at that time.

Updates will be provided to assess programs contained in the handbook they occur, and to provide updated information as new contacts, funding established.

This document was prepared by Joseph Pastel and Laura Prout of Science International Corporation under contract with the Department of Energy the agencies described in the following text. Copies are distributed economic development representatives at DOE sites and surrounding communities upon request.

To obtain additional copies please contact:

Kitty R. Gandee
Office of Facility Transition and Management, EM-60
United States Department of Energy
1000 Independence Ave., SW
Washington, D.C. 20585
(202) 586-3605

OU3 Decision Summary (Final)

OU3 Decision Summary (Final)

Comment N

COMMENT SHEET

DOE is intersted in your comments on the cleanup alternatives being c
Proposed Plan / Environmental Assessment for Interim Remedial Action
Unit 3, including the preferred alternative to decontaminate and dism
production area at the Fernald site. Please use the space provided b
comments, then fold, staple or tape, and mail this form. We must rec
comments on or before the close of the public comment period on Janua
you have questions about the comment period, please contact Ken Morga
Public Information Officer at Fernald, at (513) 648-3131.

Comments are attached

Name: Fatall

Address: Box 126

City: Ross State/Zip: OH 45061

Phone:

MAILING LIST ADDITIONS:

Please add my name to the Fernald Mailing List to receive additi
cleanup progress at the Fernald environmental Management Project:

YES___

NO___

OU3 Decision Summary (Final)

Comment N (Cont.)

Fernald Atomic Grades & Labor Council
AFL CIO Metal Trades Affiliated

P.O. Box 126, Ross, Ohio 45061

Comments of the Fernald Atomic Trades and Labor Council (FAT&LC)
February 7, 1994
Concerning the
Environmental Assessment (EA) for Operable Unit 3 (OU-3)

Fernald Environmental Management Project (FEMP)
U.S. Department of Energy (DOE)
Fernald, Ohio

INTRODUCTORY COMMENTS ON OPERABLE UNIT 3, ENVIRONMENTAL ASSESSMENT

We support the DOE's effort to obtain the earliest, least cost and of the Fernald site. We support this interim action for OU 3 as well reservations about whether the Environmental Assessment was properly risks have been properly assessed, and whether certain mitigating mea taken to reduce avoidable risk. Thus, our comments are intended to s and mitigate certain risks which we believe must be addressed in orde permissibly issue a Finding of No Significant Impact (FONSI). If the assessed, and the mitigating actions we request are undertaken, a ful action will not be required.

These comments are also intended to supplement the verbal commen Tabor, speaking on behalf of FAT&LC, that were given at the public he 5, 1994 at the Plantation in Harrison, Ohio. See transcript of heari

FAT&LC appreciates DOE's 30 day extension of the comment period. time provided a chance for a Roundtable with FRESH and FAT&LC to addr concerns regarding NEPA compliance.

1. HAS DOE TAKEN A "HARD LOOK" AT THE "WORST CASE". IS THE RISK AS-
SESSMENT PREPARED BY A PARTY WITHOUT ANY POSSIBLE CONFLICT OF
INTEREST, AND IF NOT, WHAT MEASURES HAVE BEEN TAKEN TO MITIGATE
THESE RISKS?

The EA lacks the required "worst case" analysis resulting from a failure or release from the central storage facility (CSF). The CSF radioactive and other contaminated debris, waste and rubble from the decontamination of up to 200 buildings in OU 3. A "worst case" scena

OU3 Decision Summary (Final)

Comment N (Cont.)

Comments of FAT&LC on EA for OU-3

preparing an EIS, pursuant to 40 CFR 1502.22. A worst case analysis probability analysis, a dispersion model and an environmental impact credible catastrophic failure is a hurricane or tornado tearing the f CSF and spreading contaminated material around.

The ostensible "worst case" postulated in the EA was a ruptured H Particulate Air Filter blowing matter for 24 houurs. Obviously, if a motor switch would be turned off! To suggest that a ruptured filter scenario trivalizes the intent of CEQ regulation under NEPA to examin a worst case scenario, especially where the record contains testimony comparable event) has hit near the OU-3 once before (see transcript p

To the extent that there are gaps in relevant information, or sci as may be the case here, CEQ regulations require the agency to "always such information is lacking or that uncertainty exists."

The annual and total mrem exposure (for skin, whole, eye, extremi are not detailed in the EA since environmental restoration work began

The EA postulates that the average external exposures to workers was 166 mrem between 1986-87 when operations will still underway. It the probability of an average exposure as high as 166 mrem/yr is low. RAD I training manual notes that the US annual average radiation dose person. Thus, this risk profile from d&d activity assumes that worke below the background levels for an average person not employed at the

Who has critically examined this assumption within DOE? If DOE ag that this level is achievable, will it lower the DOE and FERMCO admin levels at the FEMP correspondingly? If not, why not?

3. THERE IS NO ASSURANCE THAT THE CSF WILL NOT BY DEFAULT BECOME A LONG TERM STORAGE FACILITY. THUS SAFEGUARDS ARE REQUIRED TO ASSURE THAT THE "INTERIM ACTION" IS NOT A "FINAL ACTION"

OU3 Decision Summary (Final)

Comment N (Cont.)

Comments of FAT&LC on EA for OU-3

The EA relies on the assumption that a Central Storage facility w to cover radioactive and contaminated soils wastes and debris. These foot structures are effectively little more than a fabric covered ten on the assumption that the CSF is temporary and that permanent dispos after a final RI/FS and ROD is completed.

There are three major risks associated with the CSF that are not Appendix E of the EA, and should have been scoped before the EA was d are:

1. The temporary (CSF) facility will, by default, become a longe facility (i.e. wastes will continue to be stored after the poi finalized in late FY 97) because of budget shortfalls, alterna siting limitations, or technology shortfalls;
2. The CSF will become a permanent storage facility (due to budg reasons) i.e. final action will not be in full implementation by that the design of the CSF cover is 10 years and can be "repaired if needed to extend life); and
3. The CSF is subject to catastrophic failure due to tornado, hu event which will cause the waste and debris to be spread over the the neighboring areas off site. This risk is not considered in A was not treated seriously at the January 5, 1994 hearing by FERMC The risk from a tornado/hurricane should be compared with the ris the debris in (decontaminated/locked down) standing buildings. T also be assessed in terms of the likelihood an severity of such e spread the loose debris. While the likelihood of a tornado hitti be low over 1-3 year period, how will the likelihood increase ove period.

With respect to the three scenarios outlined above, the following

and deserve a clear reply:

1. Please define with precision the time frame covered by the wo
2. By law or rule, what is the longest time period an action can interim? 10 CFR 1021.104 does not delimit the time frame. If this te will DOE stipulate to a maximum time period beyond which the action w remain interim?
3. How can DOE and EPA guarantee that the interim action won't b permanent by default?

OU3 Decision Summary (Final)

Comment N (Cont.)

Comments of FAT&LC on EA for OU-3

4. Budget crunches are very real. Has the possibility that fund made available by Congress been factored in when deciding whether to covered storage area instead of a more durable alternative? If so, ho

5. What are the environmental and health risks of the CSF become or permanent storage facility? How are these risks mitigated in the E

6. Since there is no permanent storage facility, and a fabric te to cover the loose contaminated rubble, is the material safer in its catastrophic weather event (ie in a decontaminate and locked down bui is turned into rubble?

7. Will contaminated rubble ultimately be put into a solidifi does it make sense to begin treatment and solidification sooner to mi risks inherent in having loose rubble stored under a fabric tent?

4. DOE APPARENTLY PREJUDGED THE ADEQUACY OF THE EA TO SUPPORT A FONSI BEFORE EVER SEEKING PUBLIC OMMENT

Under questioning at the January 5, 1994 hearing in Harrison, Ohio revealed that DOE intends to issues a FONSI. Before the EA was ever review and comment on December 8, 1993, a draft FONSI had already bee dated November, 1993.

By drafting a FONSI in November, DOE has at least tentatively det a FONSI was warranted without even holding a public hearing on the EA left to wonder whether the hearing process little more than a formali a draft-FONSI before the EA has even been announced and released?

Why didn't DOE first announce its intent to issue a FONSI at the released the EA for public comment on December 8, 1993?

In response to concerns that only an EA (and not a full EIS) woul the OU-3 Interim Action, Dave Kozlowski of DOE stated at the January

"in April (1993) an acion description memorandum was written for project, which indicated that an environmental assessment would m

likely be documentation that would be needed from NEPA, and that submitted for public comment and it appeared in the Federal Register .." (transcript page 93)

An inquiry to DOE's NEPA unit in headquarters (EH-25) informs us was no Federal Register notice on this NEPA action. The only related

OU3 Decision Summary (Final)

Comment N (Cont.)

Comments of FAT&LC on EA for OU-3

could produce was a letter to the state of Ohio informing them of a combined EA for OU-3 and the CSF. Perhaps Mr. Kozlowski misspoke, he should clarify this point of concern for the record. Was there a was there public comment on this notice, and why was the public not n to perform an EA and not an EIS?

The transcript will also reveal that at no time did FAT&LC or Ric of the Oil, Chemical & Atomic Workers Union ever call for an EIS inst OU-3's interim action.

5. THE OU-3 BASELINE SUBMITTED BY FERMC0 TO DOE CALLS FOR THE REPLACEMENT OF THE CURRENT HOURLY WORKFORCE AND IS AT ODDS WITH THE EA'S ASSUMPTION OF MINIMAL SOCIOECONOMIC IMPACTS

The EA for OU-3 states that there will be "no change in the number of employees," and suggests there will be minimal socioeconomic impact from implementing the Recommended Alternative (#3). This conclusion is at odds with another document, the FEMP Baseline. FERMC0's current Baseline for the OU-3 the OU-3 hourly workforce from 170 down to 23 between FY 94-97 (SR-00 1.1.1.3, spreadsheet dated December 6, 1993). Apparently, the existing workforce will be replaced by subcontract workers. At the January 5, 1994 DOE hearing, a question for socioeconomic impact was raised, and the record reflects FERMC0 official agreeing that a different hourly workforce may be used for certain activities.

FAT&LC has subsequently been informed by DOE that the Baseline is a decisional document, and efforts are underway to implement the workforce of Section 3161 of the FY 93 Defense Authorization Act, 42 USC 7274h. workforce issues are resolved, however, the Environmental Assessment, the January 5 hearing, grossly understates the socioeconomic impacts. Any accompanying uncertainties should be identified in the EA.

6. A FINDING OF NO SIGNIFICANT IMPACT (FONSI) REQUIRES THE FINDING THAT THE PROPOSED ACTION WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT. DOES THE EA MEET THIS TEST OR IS FURTHER MITIGATION REQUIRED?

If DOE issues a FONSI, 10 CFR 1021.322(2) requires that a FONSI must

Any commitments to mitigation that are essential to render the impact of the proposed action not significant, beyond those mitigation measures that are integral elements of the proposed action, and a referenced Mitigation Action Plan...

OU3 Decision Summary (Final)

Comment N (Cont.)

Comments of FAT&LC on EA for OU-3

The EA and the Draft FONSI do not contain any means to mitigate the inherent risk in using a fabric covered structure to cover loose contamination from (1) becoming a long term storage facility; (2) becoming a permanent structure; or (3) catastrophic failure due to a tornado or hurricane.

The EA does not explore the conversion of an existing building(s) for the storage of contaminated debris, waste and rubble that might mitigate the risk of contamination in the event that there is a catastrophic event such as a hurricane. The EA must address this option.

We recommend a stipulation between DOE, EPA, Ohio EPA and members of the public that any FONSI contain the following:

1. A hammer date by which contaminated materials placed in the CSF begin to be removed from the CSF on an ongoing basis for treatment and disposal (estimated date January 1, 1998);
2. An enforceable agreement among FRESH, DOE, and EPA that prohibits permanent storage of material from OU-3, to be signed by Assistant Secretary for Environmental Restoration;
3. A system of fines/penalties against DOE and the contractor if debris materials are stored in the CSF on more than an interim basis, of interim; and
4. A commitment to minimize adverse socioeconomic impacts to the community by retaining the existing long term hourly workforce to perform environmental and waste management activity to the maximum extent feasible.

OU3 Decision Summary (Final)

Comment O

OhioEPA
State of Ohio Environmental Protection Agency

Southwest District Office
40 South Main Street
Dayton, Ohio 45402-2086
(513) 285-6357
FAX (513) 285-6404

George V. Voinovich
Governor

January 31, 1994

RE: PUBLIC COMMENTS
O.U. 3 PROPOSED PLAN

Mr. Ken Morgan
Public Relations
U.S. DOE FEMP
P.O. Box 398705
Cincinnati, Ohio 45239-8705

Dear Mr. Morgan:

The purpose of this letter is to provide official comments on the Operable Unit 3 Proposed Plan:

1. The OU3 Proposed Plan is the culmination of efforts by Ohio EPA, U.S. EPA, and DOE to mitigate potential environmental releases, achieve a faster cleanup, and realize significant cost savings. The Proposed Plan recognizes that current structures have exceeded their design life and therefore have no future use other than decontamination and demolition. This, of course will be a gradual process where buildings that are not being used to support remediation will be taken down over the next 15-20 years.
2. OU3 waste storage - Ohio EPA, as well as the residents around Fernald, have significant concern with regard to DOE's historic definition of the term "interim storage". Ohio EPA concurs that laydown, sorting and interim storage areas are needed for this Interim Remedial Action. However, we want DOE assurances that interim storage does not become long term storage. DOE should address this issue by explicitly defining the terms and duration of "interim storage" within the Interim Record of Decision.
3. Additional Storage area - With regard to building additional interim storage areas, Ohio EPA believes that DOE should make the maximum effort to utilize the Plant 1 Pad and other existing buildings and storage areas at Fernald. The Plant 1 Pad is currently undergoing a major removal action to upgrade the Pad and erect structures to provide interim storage for remediation waste like O.U.3's. To successfully utilize these areas will require a commitment from DOE to manage and ship waste residues currently stored on the Plant 1 Pad and other buildings. Ohio EPA expects DOE to make this commitment.
4. Environmental monitoring data should be collected as buildings are removed to ensure that engineering controls are effective in controlling environmental releases. This data must be made.

OU3 Decision Summary (Final)

Comment O (Cont.)

Mr. Ken Morgan
January 31, 1994
Page #2

available to the public via roundtables, fact sheets, etc..

If you have any questions about these comments please contact Tom Schneider or me.

Sincerely,

Graham E. Mitchell
Project Manager

GEM/tas

cc: Lisa Crawford, FRESH
Jack Van Kley, Ohio AGO
Tom Schneider, DERR
Jim Saric, U.S. EPA
Ken Alkema, FERMCO
Lisa August, Geotrans
Jean Michaels, PRC
Jenifer Kwasniewski, DERR
Robert Owen, ODH

OU3 Decision Summary (Final)

Comment P

BOB MILLER
Governor

STATE OF NEVADA
Director

JOHN P

DEPARTMENT OF ADMINISTRATION
Capitol Complex
Carson City, Nevada 89710
Fax (702) 687-3983
(702) 687-4065

February 7, 1994

Thomas P. Grumbly
Assistant Secretary for Environmental
Restoration and Waste Management
U.S. Department of Energy
Washington, DC 20585

Re: SAI NV #94300068

Project: Operable unit 3, Proposed Plan/Environmental Assessment for
Remedial Action, Fernald Environmental Management Project, Fernald

Dear Mr. Grumbly:

Attached is a comment from the Nevada Division of Environmental Protection concerning the above referenced project. This comment constitutes the State review of this proposal as per Presidential Executive Order 12372. Please express any concerns in your final decision.

Sincerely,

Maud Naroll
State Clearinghouse Coordinator

OU3 Decision Summary (Final)

Comment P (Cont.)

I.M. DODCOIN
Administrator

STATE OF NEVADA
BOB MILLER
Governor

Administration	(702) 687-4670	Waste Management
687-6872		
Air Quality	687-5065	Chemical Hazards Man
687-5872		
Moving Regulation and Reclamation	687-4876	Federal Facilit
Water Quality Planning	687-5863	Fax
Water Pollution Control	687-6870	
Fax	687-5856	

DEPARTMENT OF CONSERVATION AND NATURAL

RESOURCES

DIVISION OF ENVIRONMENTAL PROTECTION

Capitol Complex
333 W. Nye Lane
Carson City, Nevada 89710

February 3, 1994

CLEARINGHOUSE COMMENTS

NDEP # 94-068
SAI NV # 94300068

TITLE: U.S. DOE - Proposed Plan/EA for Interim Remedial Action for F
Environmental Management Project - NTS

The Division of Environmental Protection has reviewed the aforementioned item and has the following comments:

There has been no attempt to evaluate the appropriateness of the Proposed comments concern the disposition of wastes generated from any of or the disposition of the materials storage that have now been determined

Page 2-12 Section 2.3.2.1 Removal No.9 - Removal of Waste Inventory
This section addresses the 15,000 containers of thorium materials that are and are proposed for shipment to the Nevada Test Site (NTS) for disposition stated to be in compliance with EPA and DOT regulations and DOE Order whether or not the specific removal actions may be in compliance with however the proposed disposal facility on the NTS which would enable

not in the same level formal compliance.

DOE Order 5820.2A Requires DOE to perform a detailed PERFORMANCE of disposal facility, this has not been done for any of the disposal therefore DOE is technically not in compliance with its own Order

OU3 Decision Summary (Final)

Comment P (Cont.)

Page 2 - NDEP 94-068 - SAI 94300068

Page 3-7 under Section 3.4 Alternative 3 - Decontaminate and Dis (alternative) In the second paragraph on this page it is stated " At t facility for which a NEPA review has been completed that can receive FEMP proposes to ship 500,000 cubic feet of waste from this action to include the thorium materials declared wastes referenced in the previ intent of this statement is that this NEPA evaluation will only consi that is the site DOE has directed them to ship low level wastes to. implies that the disposal facilities at NTS have already been evaluat THIS IS NOT TRUE. Although DOE has designated and used the NTS as a facility there has never been any NEPA evaluation of this action continual point of contention with the State. Failure to perform NEP facilities is also violation of DOE Order 5820.2A

David R. Cowperthwaite
Clearinghouse Coordinator
Division of Environmental Protection

OU3 Decision Summary (Final)

Comment Q

1 to work. There were some people that signed up as

2 they came in who wished to make statements. I will
3 give their names and call them up. People who wish
4 to make a statement, you need to come up to the
5 microphone, state your name clearly so the recorder
6 can easily get your comment.

7 I would like to start with Bob

8 Schwab.

9 MR. SCHWAB: Ken, Bob Tabor is going
10 to make that presentation in behalf of the
11 Council.

12 MR. MORGAN: All right, fine.

13 MR. TABOR: I have some comments,
14 the Fernald Atomic Trade --

15 MR. MORGAN: You need to state your
16 name.

17 MR. TABOR: Oh, I'm sorry, I'm
18 Robert Tabor, speaking in behalf of the Fernald
19 Atomic Trades and Labor Council.

20 The comments of the Fernald Atomic
21 Trades and Labor Council on the environmental
22 assessment for the Fernald Operable Unit 3, you'll
23 have to bear with me, I have a relatively lengthy
24 statement here, I'll try to move this along as fast

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 as I can.

2 January 5th, 1994. The Fernald
3 Atomic Trades and Labor Council has been the
4 primary representative of the hourly work force at
5 the Fernald site for over four decades. In the
6 course of this period we have not only performed
7 production work but have performed virtually every
8 kind of environmental cleanup work. Indeed, since

9 the shutdown of the site in 1989 our work has
10 focused on the environmental cleanup.

11 In the brief period in which the EA
12 has been publicly available, the FATLC has not been
13 able to undertake the full analysis, including
14 assessing backup documents that is required.
15 FATLC, therefore, respectfully requests that the
16 record be kept open for the reasonable period of
17 time to permit the FATLC and other three weeks or
18 provide fuller comments, two or three weeks or
19 whatever the decision was.

20 However, information available to the
21 FATLC does raise basic questions which we hope will
22 be addressed by those who prepared the EA. These
23 questions go to both the EA's premises and the
24 extent to which relevant facts and law have been

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 site safety standards and required practices are
2 not adequate. If the EA's conclusion is to proceed
3 sooner rather than later, is to mitigate risk and
4 not increase it, these issues must be addressed by
5 the EA and solutions buttoned down before the
6 recommendation is approved. For example, A, FERMC
7 and DOE documents record that the site it yet to
8 comply with many basic standards and protocol,

9 including alarm, rat control, and OSHA standards.
10 FATLC has previously provided such documents to DOE
11 and would be pleased to put them in the record
12 here. How have these deficiencies, some of which
13 have been commented upon critically by the defense
14 facility's Nuclear Safety Board and others, been
15 factored into the risk assessment?

16 B, in September 7th, 1993 memo on the
17 status of the site hazardous communication program
18 for compliance with OSHA, 29 CFR 1910-1200, a DOE
19 consultant reported that, "The overall site haz com
20 program is not in compliance with current OSHA
21 standard, 29 CFR 1910-1200, nor the site document
22 chemical hazardous communications program, RN2806."

23 Most of FERMCO's internal time align
24 dates have not been met, nonetheless in a September

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 considered.

2 In essence, the EA supports the
3 recommended alternative immediate facility
4 dismantlement and demolition on grounds that quick
5 reaction will save costs and reduce needless worker
6 and community exposure to risk. In the absence
7 FATLC agrees this sounds plausible. However, it
8 has recently become clear evidence that present

9 site health and safety rules and practices, work
10 force plans, and by that token cost and safety
11 assumption are inadequate and indeed contrary to
12 law. Hither to these matters have not been
13 addressed. By that token it does not appear that
14 they are addressed in the EA. In raising them at
15 this same time, FATLC wants to make clear that it
16 hopes to work in good faith with FERMCO and the DOE
17 and other stakeholders to address these matters.
18 However, given the limited time available to file
19 comments and the fact that these matters remain to
20 be resolved, FATLC is obliged to raise these
21 matters here. We also will provide for the record
22 further documentation transmitted to DOE which
23 addresses these questions.

24 Firstly, it is now clear that the

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 30th, 1993 road map of the site, FERMCO stated that
2 it is in compliance with 29 CFR 1910 Occupational
3 Safety and Health standards. The FERMCO prepared
4 road map was forwarded by DOE Fernald to
5 headquarters, evidently for public distribution.
6 Is FERMCO in compliance with OSHA? Has anyone
7 checked? What does the EIS assume? What effect

8 would noncompliance have if work is speeded up?

9 C, in a November 30th, 1993 letter to
10 FERMCO, DOE informed FERMCO of basic deficiencies
11 in the FERMCO health and safety plan. In
12 particular, DOE stated the plan lacked basic worker
13 empowerment provisions which DOE stated are
14 essential to assuring health and safety. What does
15 the EIS assume about the adequacy of the basic site
16 health and safety plan? What effect would speedup
17 have in light of an inadequate plan?

18 D, the EA concludes that there is
19 relatively little risk of radioactive release from
20 the site. Once again, it is not clear whether this
21 assumption is founded on full knowledge of the site
22 activities. For example, FATLC has recently
23 brought to DOE and Congressional attention a
24 release of uranium hexafluoride that to FATLC's

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comments Q (Cont.)

1 understanding was not reported as required. DOE
2 has been on-site investigating this release and
3 related issues of nuclear safety. Are those who
4 prepared the EA aware of of this episode and the
5 practices that underlie it? Has such an episode
6 been factored into the risk assessment?

7 E, documents confirm that FERMCO has

8 at least until extremely recently displayed what
9 has been called an insensitivity to health and
10 safety issues. For example, as discussed at recent
11 Congressional hearings, FERMCO's safety manual
12 actually counseled FERMCO employees not to provide
13 information on potential safety violations to
14 government compliance inspectors. Similarly,
15 FERMCO documents show that FERMCO ES&H staff
16 compared the cost of complying with health and
17 safety rules against the penalties for
18 noncompliance.

19 In the most recent past DOE and
20 FERMCO have stated a commitment to address basic
21 health and safety issues and deficiencies in
22 ongoing programs. FATLC looks forward to working
23 with them and all others in this process.
24 Nonetheless, the timing and extent to which they

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comments Q (Cont.)

1 will be addressed remains to be seen.

2 In addition to the specific questions
3 noted above, examples such as those above raise
4 more basic questions, including:

5 One, did those who -- let me see
6 here -- did those who reviewed the EA at the EPA
7 and the Ohio EPA questions health and safety

8 assumptions provided by FERMCO and DOE?

9 Two, did the EA examine and/or
10 contemplate the health and safety deficiencies that
11 have recently surfaced? If not, who does their
12 presence affect the presumption that workers in the
13 community will be benefited by speedy action?

14 Three, what actions will be taken in
15 revising the EA to bring to bear critical analysis
16 on the deficiencies that have surfaced and on the
17 remedies that must be provided before action can
18 proceed?

19 Secondly, FERMCO has planned to
20 replace the FATLC work force which has long
21 performed cleanup tasks with a new work force, much
22 likely with less experience at the site and, for
23 all anyone knows, maybe less experience with
24 nuclear materials. This work force is to be

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 employed under a document called Project Labor
2 Agreement. Workers hired under this agreement will
3 be governed by the very FERMCO health and safety
4 plan which the DOE has just found deficient. In
5 contrast, FATLC, the negotiators of the Project
6 Labor Agreement, failed to insist on the worker

7 empowerment provisions which the DOE has confirmed
8 are essential for Fernald site health and safety.
9 FERMCO'S design to replace the long-term work force
10 is made plain by the baseline document which FERMCO
11 has recently provided to DOE. This document in
12 essence lays out the plans for the site, and DOE
13 must approve the document. The baseline volumes
14 for Operable Unit 3 show that virtually all work
15 will be subcontracted out under the Project Labor
16 Agreement. That is even though FATLC worker has
17 long performed cleanup at the site, the FERMCO plan
18 shows he or she will likely be fired to be replaced
19 by a new worker hired under a subcontract, perhaps
20 with no site experience, who will perform the same
21 or similar work and probably at higher pay.

22 The replacement of a worker with
23 nuclear cleanup experience is contrary to common
24 sense as well as equity. In the case of nuclear

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 sites there is a special premium on maintaining
2 those who have dealt with nuclear waste and no
3 particulars of the site. This experience is
4 essential because, as has been repeatedly found and
5 as DOE has acknowledged, traditional oversight

6 agencies such as OSHA, DOE, and environmental
7 agencies have lacked staff and other resources
8 needed to follow site work in the detail needed.

9 In this case the planned replacement
10 of the existing work force is without evident
11 regard for statutory and DOE policy to maintain, to
12 the extent practicable, the long-term work force as
13 cleanup proceeds. For example, see Section 31 of
14 the fiscal year 1993 Defense Authorization Act in
15 the DOE Five-Year Plan.

16 In addition to jeopardizing safe and
17 efficient cleanup, the replacment of the long-term
18 work force will obviously have impact on the
19 communities in which they live. We emphasize this
20 is not a case where workers will become unemployed
21 because there is no work to be done, rather it is a
22 case where experienced workers will be replaced for
23 the same or similar work with no apparent economic
24 or health and safety logic.

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 In light of the above, FATLC requests
2 that the revision of the EA address the following
3 questions: One, did those perparing the EA
4 consider Section 3161 and the work force continuity
5 policies expressed in the DOE Five-Year Plan? If

6 not, these must be considered.

7 Two, what assumptions does the EA
8 make about work force to be used in the cleanup of
9 OU-3? For example, does the EA assume that
10 whatever is stated in FERMCO's, baseline will
11 govern? If not, what is assumed?

12 Three, if the EA made no assumptions
13 or accepted FERMCO's, what consideration was given
14 to the costs and health and safety effects of the
15 planned replacement of the Fernald Atomic Trade and
16 Labor Council work force as indicated in the FERMCO
17 OU-3 baseline? For example, in deposition
18 testimony FERMCO's president stated that in
19 determining to employ subcontract workers and
20 replace FATLC on cleanup work, FERMCO would
21 cost comparisons. That is, FERMCO would
22 subcontract work out even if it costs taxpayers
23 more. Does the EA's cost analysis and conclusions
24 contemplate this logic? Have those performing the

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 EA performed their own cost analysis of the way in
2 which FERMCO proposed to do the work?

3 As stated above, the Project Labor
4 Agreement lacks health and safety provisions which

5 DOE has recently told FERMCO are essential to
6 worker protection. Does the EA's recommendation to
7 press on with the work contemplate the use of a
8 work force that failed to insist upon protections
9 required by workers and the community? If so, what
10 consideration has been given to the effect on
11 worker and community safety?

12 The introduction of hundreds of new
13 workers to replace the FATLC work force will
14 require extensive training. However, at the same
15 time FERMCO would fire workers in whom taxpayers
16 have invested many thousands of dollars in training
17 and experience. Does the EA consider the cost and
18 safety consequences of this waste of scarce
19 taxpayer dollars?

20 Thirdly, if work is to proceed
21 expeditiously, then safe and efficient performance
22 requires an assured supply of trained personnel.
23 On the other hand, FERMCO has proposed to fire the
24 experienced FATLC work force. And on the other

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 hand, it admittedly does not have the plans and/or
2 resources to train needed workers. For example,
3 the November 30th, 1993 FERMCO baseline document
4 records that FERMCO is or has terminated contracts

5 who have been providing radiation worker protection
6 classes. This says FERMCO will reduce the number
7 of qualified RAD Worker II personnel by
8 approximately 50 percent weekly.

9 Additionally, development of other
10 DOE mandated training will be delayed because of
11 insufficient personnel to develop identified
12 training.

13 Have those preparing and reviewing
14 the EA considered the adequacy of the training
15 programs and related resources which underlie the
16 recommended alternative? If so, where is the
17 analysis? If not, such analysis is essential to
18 any recommendation for quick action.

19 Fourthly, have those preparing the EA
20 considered the impact on community dislocation of
21 plan which would rapidly remove a long-standing and
22 community based work force and replace it with an
23 alternative work force, one which may have far less
24 roots in the Fernald communities? If so, where is

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment Q (Cont.)

1 the analysis? While community impacts may be hard
2 to quantify, they will nonetheless be real.

3 FATLC notes that whatever rules may
4 govern the triggering of the EA/EIS where one is

5 prepared, it is axiomatic that related sociological
6 impacts must be considered. Moreover, in this
7 situation the need to consider community impacts is
8 independently mandated by Section 3161 and DOE's
9 own policies, including order 47.1 as well as the
10 Five-Year Plan. The EA states that there will be
11 no change in employment levels.

12 Fifthly, the EA proceeds on the
13 premise that the proposed actions can be considered
14 interim and, therefore, analysis of permanent
15 actions is not required at this time. As the
16 Fernald Atomic Trades and Labor Council understands
17 it, however, the OU-3 work includes shipping waste
18 off-site for permanent disposal elsewhere. This
19 would seem to be an action which could not be
20 characterized as interim.

21 Thank you for this opportunity. We
22 look forward to your response to our comments and
23 the opportunity to submit supplementary comments.
24 And I have here an additional document that I would

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment R

1 like to submit for the records

2 MR. MORGAN: Thank You.

3 MR. TABOR: Thank You.

4 MR. MORGAN: Jerry Monahan.

5 MR. MONAHAN: Jerry Monahan, Greater
6 Cincinnati Building Trades. I would like to make
7 just some brief remarks, mostly in response to Mr.
8 Tabor's remarks, but what I believe is inaccurate
9 description of the Project Labor Agreement.

10 The Project Labor Agreement that we
11 negotiated with the FERMCO Company in a traditional
12 fashion that is usually implemented at sites of
13 this type includes provisions for training of all
14 of our employees who previously might not have had
15 training. We have had employees at this site from
16 its inception; in fact, we were there before FATLC,
17 we built it before FATLC entered the picture. Our
18 workers currently attend training through grants of
19 the United States Government through our various
20 internationals, and in fact many of the FATLC
21 employees went to those same schools that we have
22 attended. Our record of safety has been
23 outstanding, and in fact the most recent accidents
24 have involved the FATLC Council and not the

Spangler Reporting Services

PHONE (513)381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment R (Cont.)

1 Building Trades Council.

2 As far as the issue of local, all of
3 our locals are in the Cincinnati area. I represent
4 approximately 13,000 employees who have worked at

5 this site whenever there was a need for
6 construction activities.

7 I also would like to bring up the
8 economics, that FATLC people did not normally
9 perform functions of construction, and to retrain
10 workers who had previously performed duties that
11 were in the plant and then to educate them and
12 bring their skill level up to the construction
13 trade would be very cost prohibitive. We're
14 sympathetic to the idea that the employment in the
15 past or whatever contribution the FATLC people
16 might have made. We are also aware of the laws
17 that govern it. As we understand it, many of these
18 decisions that had been made on the work or all of
19 them that have been made up to this time on the
20 work, are under provisions of law, the Davis Bacon
21 Law or the Service Contract Act. That has been the
22 guiding principle. That is separate from the
23 Project Labor Agreement.

24 Again, our workers will always be

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment R (Cont.)

1 safe and they will be productive, and they are
2 trained. It's a misconception that they are not
3 trained or they're not aware of the dangers of
4 radiation or construction activities.

5 We have also attempted to resolve
6 these issues in separate fashion whenever requested
7 by the Department of Energy, by the FERMCO Company,
8 or any third-party politicians. We'll continue to
9 be cooperative. We intend to protect our
10 traditional work, which is construction activities,
11 and we have no intent of performing duties that
12 rightfully being to FATLC. Thank You.

13 MR. MORGAN: Thank you. Virginia
14 Least.

15 Virginia Least.

16 Lisa Crawford.

17 MS. CRAWFORD: I defer my time, I
18 will hand my comments in in written fashion

19 MR. MORGAN: Thank you. Edwa Yocum.

20 MR. YOCUM: I defer my time and I
21 will hand my comments in in written fashion.

22 MR. MORGAN: Thank you. Are there
23 any others who would like to speak? Vicki.

24 MS. DASTILLUNG: Vicki Dastillung.

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment S

SPIEGEL & MCDIARMID
350 NEW YORK AVENUE N W
WASHINGTON DC 20005-4798
TELEPHONE 202: 879-4000
TELEPHONE 202: 393-2966

December 13, 1993

Via Hand Delivery

The Honorable Hazel R. O'Leary
Secretary of Energy
U.S Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Re: Fernald, Ohio Site: Health and Safety Plans
and Practices

Dear Secretary O'Leary:

On behalf of the Fernald Atomic Trades & Labor Council, our letter is to welcome the critical attention which DOE is bringing to safety at the Fernald, Ohio site, as evidenced by the Department's confirmation that the health and safety plan maintained by the prime contractor, Environmental Restoration Management Corp. ("FERMCO"), evidently requires prompt correction.

In its November 30 letter to FERMCO, DOE indicated, as it has elsewhere, that its review of the FERMCO plan constitutes only a preliminary DOE review of health and safety concerns at the site. FAT&LC welcomes DOE requests for the opportunity to provide continued assistance, as appropriate. This letter is to note that there are several further issues requiring immediate attention. These include:

ARE CONTRACTOR AND DOE REPRESENTATIONS
OF HEALTH AND SAFETY COMPLIANCE RELIABLE?

First, there are questions about the accuracy of health and safety data prepared by FERMCO and put out to the public under DOE imprimatur. Following a September 7, 1993 memorandum on a review of the Fernald Hazard Communication Program for Compliance with OSHA Rules (29 CFR 1910.1200), a DOE contract (Modern Technologies) recorded that: "[t]he overall site HAZCOM Program compliance with the current OSHA standard (29 CFR 1910.1200), nor the

OU3 Decision Summary (Final)

Comment S (Cont.)

The Honorable Hazel R. O'Leary
December 13, 1993
Page 2

Chemical Hazard Communication Program (RM-2086). Most of FERMCO's initial timeline dates have not been met."1

We have not learned of any subsequent document which attests to correction of the deficiencies found, and compliance with the OSHA HAZCOM. However, on September 30, 1993, FERMCO submitted a "ROADMAP" for the site which states that it is "in compliance" with 29 CFR 1910/Occupational Safety Standards (Attachment 2).

The ROADMAP is a "state of the site" document for the Fernald Remedial Management Project ("FEMP"). It serves as basic reference for the community. On October 20, 1993 DOE Fernald transmitted FERMCO's draft Roadmap to the BDM ROADMAP coordinator for distribution in headquarters and to the BDM ROADMAP coordinator for distribution in headquarters. There is no indication that the document had been reviewed or evaluated and no OSHA compliance (Attachment 2).

1. A copy of the document is attached (Attachment 1). Among other things, the findings raise questions about whether all chemicals coming onto the site have Material Safety Data Sheets ("MSDS"). For example, the "main points" included:

If IH [Industrial Hygiene] can not obtain MSDSs from the vendor, neither IH, nor any other group, are currently writing MSDSs for the site. Therefore, chemicals are on site without MSDSs, and there is no system for developing these if they can not be obtained from the vendor.

We note that the FERMCO contract provides, among other things, that the "Contractor agrees to submit a Material Safety Data Sheet...5 days before use of the material." See Section D.3 (FAR 52.223-3 Hazardous Material Information Requirements) of the contract. Has FERMCO been in compliance with this requirement?

2. Indeed, FERMCO's own self-assessment for the period ending September 1993 identifies under "Weaknesses" (at page 28):

1. Safety...

c. Hazard Communication needs improvement. Audits of work areas still find chemicals that are not listed in MSDS notebooks. Systems are being developed to identify chemicals, update MSDs, and train employees.

OU3 Decision Summary (Final)

Comment S (Cont.)

The Honorable Hazel R. O'Leary
December 13, 1993
Page 3

Can DOE assure the public that the ROADMAP's statement of regulatory compliance, when made, and today, are correct, in the face of near-complete documentation which raises questions? Or has DOE rubber stamped a path through it?

CAN DOE ASSURE THAT THOSE WHO QUESTION
FERMCO HEALTH AND SAFETY DIRECTION AND
PROTECTION WILL BE PROTECTED AGAINST RETALIATION?

Second, there is the question of adequacy of FERMCO supervisor

direction, and the protection of those who question health and safety

For example, FAT&LC brought to DOE attention evidence of a potential serious episode involving uranium hexafluoride. On December 2 and 3 visited the FERNALD site to talk with FAT&LC members and others. We investigation is continuing. In addition, FAT&LC officials have test standings regarding further questionable safety practices at the site

FAT&LC is ready and willing to cooperate with DOE (and other appropriate official groups) in order to get to the bottom of questions that. However, the prospect of retaliation (against FAT&LC and any others) is a reality. What has been termed a "critical lack of sensitivity toward health and safety"³ appears to be indistinguishable from a design that ignores those who raise health and safety principles.

First, the FERMCO Comprehensive Environmental Occupational Safety Health Program ("CEOSH") expressly enjoins FERMCO employees from interfering with official Compliance Officers of health and safety violations.⁴

3. See December 1, 1993 statement of John Dingell, Chairman, Subcommittee on Oversight and Investigations. Committee on Energy and Commerce. U.S. Representatives.

4. It states that when Compliance Officers come on site:

Courteous treatment of the CO [Compliance Officer] is expected at all times and the following principles must be followed during the walk-around phase.

- Do not agree that any alleged violation exists.
 - Do not point out any possible/probable violations.
- (continued...)

OU3 Decision Summary (Final)

Comment S (Cont.)

The Honorable Hazel R. O'Leary
December 13, 1993
Page 4

Second, on November 29, 1993 FERMCO evidently initiated a "business ethics and conduct policy" which subjects employees to dismissal if they "under circumstances, investments, interests or affiliations which could reflect poorly on the Company or its clients, and (f) have the potential to erode the trust and confidence of the public, the government, our clients or employees in the Company." We do not know if this policy was in effect when employees from raising questions about FERMCO's performance or conduct were before the U.S. Congress, but its effect can only serve to diminish the ability of employees to become whistleblowers and retain their privacy. It has not escaped us that this policy surfaced 2 days before December 1, 1993 hearing before the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce, and shortly following

Court invitation that the Department review FERMCO's health and safety

Third, in mid-1993, when FAT&LC expressed concern about the failure to provide work breaks for those wearing protective equipment during hot work, FAT&LC told FERMCO that "any future work for the FAT&LC will depend on their ability to perform without grievances, without abuse of non-productive time, and

Since then, FERMCO has steadfastly sought to gut the (Article 23) health and safety protections (including the right to refuse work and right to the media or authorities) which FAT&LC won through hard fought battles years ago.

FERMCO's September 1993 "best and final" contract proposal deluged the District Court with extraordinary health and safety/whistleblower protections. On September 15, 1993, District Court Judge Spiegel ordered FERMCO to continue to honor the Article 23 subsequent Court filings, however, FERMCO (with the support of the Gr

4. (...continued)

- Do not indicate that you have been or are aware of any alleged violations.
- Do not argue with the CO whether a violation or problem exists.
- Do not volunteer any information or make any admissions.

See EAPR 3-6; Revisions 0, page 3 of 7.

5. See Affidavit of FAT&LC President Robert Schwab (Attachment 3 at paragraphs 9 and 10), and FERMCO Industrial Relations memorandum on the Joint Labor-Management Committee Meeting (Attachment 4).

OU3 Decision Summary (Final)

Comment S (Cont.)

The Honorable Hazel R. O'Leary
December 13, 1993
Page 5

Building and Construction Trades Council) continued to contend that the CEOSH is inadequate to protect worker safety. By letter of November 3, 1993, DOE confirmed that, in its judgement, the CEOSH is deficient.

On December 2, however, a FERMCO public relations memorandum sought to dismiss the problems identified by DOE and Congress as "misinformation" by FAT&LC. On December 3, FERMCO delivered a "best and final" contract to FAT&LC. Remarkably, FERMCO proposed to substitute its CEOSH, which had been found deficient, for the worker protection provisions FAT&LC sought for long ago.⁶

What assurance is there that under color of "collective bargaining

tions." FERMCO will not be permitted to destroy the fabric of worker protection that it took years to weave?

HOW WILL THE PUBLIC KNOW THAT HEALTH
AND SAFETY COST CUTTING MEASURES
DO NOT COMPROMISE HEALTH AND SAFETY?

Fourth, there are the questions raised by FERMCO's evident pro balance health and safety measures against costs. At the December 1 Hearing, for example, FERMCO confirmed that FERMCO ESH (environment s health) staff engage in calculation of the costs and benefits of comp Moreover, in August 1993 FERMCO proposed to DOE that costs could be c other things, making workers pay for their own safety equipment and r quency of testing for radiation exposures. FERMCO noted that the for DOE to "relax interpretation of regulatory guidelines." and that "[o] latter could be implemented without violating OSHA 29 CFR 1910 (Attac pages 15 and 17).

Will DOE assure that FERMCO's proposals to relax health and sa and cut health and safety costs be supported by analysis that are acc holders whom the rules are to protect?

-
6. FERMCO's memorandum transmitting the "best and final" offer accuse FAT&LC President Schwab of "Staying away" from contract negotiations of December 3. FERMCO was well aware that Mr. Schwab was in attendan meeting(s) with DOE investigators to consider the uranium hexafluorid December 9 FERMCO withdrew the December 3 "best and final" proposal.

OU3 Decision Summary (Final)

Comment S (Cont.)

The Honorable Hazel R. O'Leary
December 13, 1993
Page 6

HOW WILL THE PUBLIC KNOW THAT
FERMCO ENVIRONMENTAL COST-CUTTING
DOES NOT COMPROMISE HEALTH AND SAFETY?

Fifth, FERMCO cost cutting proposals involve reducing env well as health and safety obligations. For example, FERMCO proposes Actions (IA) whenever possible to expedite cleanup activities." FERM "savings result from avoidable and/or reduced NEPA, RI/FS costs, site terization costs and D&D acceleration. "FERMCO noted that "EPA or th may ultimately place a limit on the use of Interim Actions" (Attachme

Will Stakeholders and the public have access to analyses needed that FERMCO proposals do not unduly cut regulatory corners, and have reviewed and approved by DOE (and other appropriate agencies)?

CAN DOE ASSURE THAT SAFETY TRAINING

WILL PROTECT WORKERS AND BE DONE EFFICIENTLY?

Finally, there are questions about the efficiency of health and safety training. FERMCO intends to rely heavily on training provided by the Great Building and Construction Trades Council ("GCBCTC"), under its Project Agreement ("PLA") with FERMCO.

However, the primary health and safety protection vehicle bargained for in the PLA is the CEOSH. DOE's November 30 letter confirms that the CEOSH currently "lacks lack[s] the provisions which adequately integrate and ensure development and implementation of a comprehensive health and safety program." DOE letter further noted that, in DOE's experience, the "human factor comprehensive management program are as, or more, important than its programmatic aspects." In Federal court, however, GCBCTC as well as the union actively supported the adequacy of the FERMCO CEOSH.

What actions will DOE take to assure that those who do Fernald worker training are sufficiently attuned to worker protection and employee requirements, and can communicate them with requisite vigor, notwithstanding contractor opposition?

OU3 Decision Summary (Final)

Comments S (Cont.)

The Honorable Hazel R. O'Leary
December 13, 1993
Page 7

FERMCO has told DOE that PLA will save money because the GCBCTC will provide training at union expense.⁷ But much of this "savings" will be paid for by taxpayers, as these training programs are largely funded by DOE's environmental restoration budget.⁸ In this time budget cut environment, confidence in FERMCO's assertion of training-related savings? Moreover, DOE has been laying off workers in whom many thousands of taxpayer training dollars have been invested. Does DOE know whether the claimed savings may be offset by increased training expenditures that will be lost?

In conclusion, FAT&LC realizes the matters addressed here are complex and difficult. As you and your staff have recognized, however, the public demands that health and safety questions be addressed directly, and up

FAT&LC respectfully requests the opportunity to review and comment on FERMCO's response to the November 30 letter, prior to any approval by DOE. FAT&LC has been the primary representative of workers at the Fernald site for four decades. FAT&LC previously fought and bargained for the worker's right to health and safety training, which, DOE's November 30 letter confirms, appear to be lacking in the current PLA. FAT&LC further believes it would be of value if other Stakeholders, including community groups and other worker representatives, are also invited to comment on FERMCO's response.

7. The PLA "results in significant cost savings (e.g., 40 hours Haz training for craft personnel at no expense to DOE). The overall esti are \$15-20 million." Self Assessment, at page 6; item p.

8. Section 3131 of the FY 92 Defense Authorization Act provided \$10 hazardous waste worker training grants to unions and universities, an Authorization Act authorized an added \$11 million. These training fu tered through an interagency agreement between DOE and the National I Environmental Health Sciences ("NIEHS").

OU3 Decision Summary (Final)

Comment S (Cont.)

The Honorable Hazel R. O'Leary
December 13, 1993
Page 8

In any event, FAT&LC remains available to provide further i regarding the above, and such assistance as may be appropriate o

Very truly yours,

Dan Guttman
Attorney for
Fernald Atomic Trades & Labor Council

DG/kah
Attachments
cc (with attachments):
Tom Grumbly, Assistant Secretary
Robert Nordhaus, Esq., General Counsel
Tara O'Toole, Assistant Secretary
Dan Reicher, Esq., Deputy chief of Staff
Scott Van Lente, Esq., DOE Counsel Fernald
Bob Schwab (President, FAT&LC)
Melvin Hutson, Esq.
Richard Resnick, Esq.

OU3 Decision Summary (Final)

Comment S (Cont.)

Attachment 1

MTC/FES-93-305

MEMORANDUM

DATE: September 7, 1993

TO: W. J. Quaider, DOE-FN
J. C. Simak, DOE-FN
D. N. Harper, DOE-FN

FROM: M. B. Jones

SUBJECT: STATUS OF SITE HAZARD COMMUNICATION PROGRAM (FOR
COMPLIANCE WITH OSHA 29 CFR 1910.1200)

In order to provide continued follow-up on Industrial Hygiene (IH) p site. I met with Debbie Grant, FERMC0, IH Section, to determine the FERMC0's Hazard Communication (HAZCOM) Program since my last status May 13, 1993. Attached are copies of the latest FEMP Hazard Communi Program Analysis and HAZCOM Check and Action Worksheet, which give F timeline for completion of various portions of this program. (These updated since the May report.)

In my discussion with Debbie Grant, several other groups were identi to contact in the overall program assessment. Additionally, I conta to determine their policy and procedures for handling chemicals that Material Safety Data Sheet (MSDS); 2) Training, for an update on the training program; and 3) ESH, for a copy of a recent assessment repo

The following summarizes the main points of these discussions and re are not listed in order to importance to the program.

1. All MSDS stations have been visited and an inventory of chemical taken by IH, except for the laboratory area and G3. The laborat conducting their own inventory, and it is moving very slowly. (date was 5/1/93.)
2. IH wrote up a HAZCOM training program for the porters, which was to them by their supervisors.
3. The following is the breakdown of MSDSs on-site:
4258 Chemicals in the MSDS database
787 No MSDSs as yet

MTC Modern
Technologies

OU3 Decision Summary (Final)

Comment S (Cont.)

MTC/FES-93-305
Page 2

Of these 787 chemicals, 343 simply do not have MSDSs as yet, 44 may not be chemicals still on-site. IH is inquiring with the d supervisors to see if they really have these chemicals. So far only 20 on-site.

(FERMC0 due date to have MSDSs from vendors was 6-1-93.)

4. Debbie Grant receives a purchase order for every chemical that but does not really have time to review these against the current database.
5. IH is looking into the Haz-Track System, which would bar code chemicals out of buildings to show the movement of chemicals throughout the site. One of the problems is that once chemicals are received, they do not always stay with the same group that purchased them. MSDSs do not always accompany the chemicals when they move.
6. IH is looking into ordering some additional training videos, but allow them to purchase anything at this time. (FERMCO due date for buying videos was 6/1/93.)
7. The written HAZCOM Program has not been updated as yet. (FERMCO due date was 8/1/93.)
8. Annual general training varies per department or organization. It is not consistent at this time. (FERMCO due date 7/1/93.)
9. If departments call in for a safety meeting topic in August, HAZCOM suggested. IH will have to develop information for each group they are handling. HAZCOM safety meetings are not mandatory at this time. (FERMCO due date was 6/1/93. A letter was to be written by then requiring one safety meeting per year to be devoted to HAZCOM.)
10. IH also indicated they currently had no system for tracking employees who have been trained.
11. If IH can not obtain MSDSs from the vendor, neither IH, nor any other group is currently writing MSDSs for the site. Therefore, chemicals are not tracked, and there is no system for developing these if they can be obtained from the vendor.
12. IH would like to get rid of the chemicals no longer being used. There is no program in place to do this at the present time. (FERMCO due date 5/1/93.)

OU3 Decision Summary (Final)

Comment S (Cont.)

MTC/FES-93-305
Page 3

13. No system has been set up to revise MSDSs on a regular schedule. There is no system set up to assure maintenance of the MSDS binders. (FERMCO's due date for both was 6/1/93.)
14. There is no system developed to write MSDSs for chemicals generated on-site. Even though employees have been exposed to fly ash during boiler operations, no MSDS exists for fly ash at this time.
15. FERMCO's training department is developing a "boiler plate" Task Briefing training program for 22 different areas on-site. These MSDSs are for each different area. The "boiler plate" program will

specific training on the various sections of an MSDS and is expected to be completed for all 22 areas by the end of September 1993. A "draft" of the "boiler plate" program is attached. I understand a section on chemical families and storage compatibilities will be added before it is due date 7/1/93.)

It is anticipated that Daryl Miller will issue a letter requiring training when the 22 area programs are completed. The training will be by the supervisor using the "boiler plate" program and the employee will sign an attendance roster for tracking purposes. (FERMCO due date 7/1/93.)

16. Attached is a portion of the recent ESH report on the site HAZCOM. It gives additional details of findings at several MSDS stations, including the contractor, the potential OSHA penalty for non-compliance, and recommendations.

SUMMARY AND RECOMMENDATIONS

The overall site HAZCOM Program is not in compliance with the current Standard (29 CFR 1910.1200), nor the site document Chemical Hazard Communication Program (RM-2086). Most of FERMCO's internal timeline has not been met.

1. Updating of the MSDSs at the individual stations, as is currently done, will always be a very labor-intensive operation. A site-wide computerized system for accessing MSDSs should be investigated.
2. A system/program should be developed to remove unknown/unlabeled and no longer used chemicals from the site in a scheduled time.
3. IH needs to review all POs to assure chemicals coming into the site are properly labeled.

OU3 Decision Summary (Final)

Comments S (Cont.)

MTC/FES-93-305

Page 4

4. The Receiving Department needs to have a written procedure on how to handle chemicals that arrive with no MSDS, and what paperwork is required to send chemicals back to a supplier.
5. The training programs need to be developed to specifically give information on the terminology and use of the various sections of the MSDS. In a recent survey, OSHA identified that, even when MSDSs were provided to employees, they did not understand the information presented on them. This training must be documented.
6. If the supervisors will be providing the HAZCOM instruction, they should be given separate training on the OSHA HAZCOM Standard and on the use of the MSDS.
7. The laboratory inventory and MSDS Stations should be completed.
8. The WEMCO document on HAZCOM (RM-2086) needs to be updated by the end of the year.

FERMCO.

9. An on-site chemical tracking system is needed to fulfill the "c tracking requirement and determine the chemical movement between (Modern Technologies has developed a system which is currently Wright-Patterson Air Force Base, which will be installed at 84 around the country. FERMCO may wish to investigate this program.
10. A better system for documenting and obtaining MSDSs from vendor developed. If a MSDS can not be obtained, the chemical needs to be of or a MSDS developed by FERMCO.
11. A documented procedure should be instituted that assures contra HAZCOM training and MSDSs for the hazardous chemicals they are with.

I understand that Debbie Grant took a voluntary RIF in the last FERMCO reduction. Walt Mengel will be assuming responsibility for the site. Don Fleming indicated that he and Walt Mengel will be reviewing the in the next few weeks.

Attachment

c: MTC-FES Program File

OU3 Decision Summary (Final)

Comment S (Cont.)

Attachment 2

United States Government

Department of Energy

Fernald Field Office

Memorandum

DATE OCT 20 1993
DOE-0101-94

REPLY TO FN: Youngmeyer
ATTN OF:

SUBJECT: FISCAL YEAR 1994 ROADMAP

TO: Lenora J. Lewis, EM-10, FORS

Attachment is the revised FY 1994 Roadmap submission for Environmental Management Project (FEMP). This revision includes Resource Projections and the Logic Diagrams, which were in the Roadmap Plan was submitted on October 1, 1993. A copy revision has been sent directly to the BDM Federal Roadmap distribution in Headquarters.

If you have any questions, please call Harley Youngmeyer

J. Phil Hamric

Manager

Attachment: As Stated

cc w/att:

R. P. Whitfield, EM-40, FORS
J. J. Fiore, EM-42, TREV
K. A. Chaney, EM-424, TREV
N. C. Kaufman, FERMCO

OU3 Decision Summary (Final)

Comment S (Cont.)

Fernald
Environmental
Management
Project

Fiscal Year 1994
ROADMAP

September 30, 1993

Prepared For The Department Of Energy By
Fernald Environmental Restoration Management Company

OU3 Decision Summary (Final)

Comment S (Cont.)

FY 1994 Roadmap
Regulatory Drivers

Regulation: 40 CFR Part 61/National Emission Standards for
ants (NESHAP)

Regulating Authority: US EPA

Description: In general, NESHAP limits the emission of pollu
requirements of 40 CFR Part 61 include the following:

1. Limit emissions of radionuclides (other than ra

- dose of less than 10 mrem/yr to off-site reside
2. Maintain continuous emission monitoring on any vent) with a potential to emit more than 0.1 mrem/yr.
 3. Receive approval for construction or modification potential to emit more than 0.1 mrem/yr. Construction or conducted without approval on facilities that emit less than must be identified in annual report in the year it is completed
 4. Submit annual compliance demonstration report to the US EPA June 30.
 5. Limit the radon flux from any building, structure internal storage or disposal of waste material pCi/m²s.
 6. The flux standard does not apply during active

Status: In compliance

Regulation: 29 CFR 1910/Occupational Safety & Health Standards

Regulating Authority: Department of Labor

Description: 20 CFR 1910 ensures the safety and health standards to prevent illness and injury, regulation, and mandates that employees be informed of associated with any hazardous materials.
29 CFR 1910.120 also regulates safety and health training employees at hazardous waste sites being cleaned in addition hazardous waste treatment, storage, and disposal conducted under RCRA. Training content and hour requirements are specified in the rule.

Status: In compliance

OU3 Decision Summary (Final)

Comment S (Cont.)

Attachment

AFFIDAVIT

1. My name is Robert Schwab. I am President of the Fernald Atomic Labor Council ("FAT&LC"). I have worked at the Fernald site since May of

2. I have worked at the site as a millwright. The work I have performed stripping buildings during dismantlement, and size reduction, (when buildings are torn down, they must be reduced in size for disposal).

3. In addition to President, I have served as FAT&LC'S health and safety and have held other FAT&LC offices.

4. I gave deposition testimony in this case on _____. A copy of deposition is not presently available.

5. I understand that FERMCORP intends to subcontract out the work of demolishing Plant 7, a building on the site. FAT&LC members have

in dismantling decontamination, and demolition (including asbestos abate

6. FAT&LC has examined the tasks that will be required in the disma demolition of Plant 7, as defined by FERMC0. The results of this analys Attachment I to this affidavit. As that document shows, literally dozen work that can be performed by FAT&LC members, including pipefitters, wel decontaminators, hazardous waste technicians, and motor vehicle operator

7. In fact, the FAT&LC analysis confirms that many tasks in Plant 7 and demolition are within the capabilities of the FAT&LC members who wer October. For example, the lay off included decontaminators, as well as and millwrights.

8. FAT&LC has told FERMC0, through the subcontract review committee that its members, including laid off members, are capable of performing be required in the dismantling/decontamination/demolition of Plant 7. F that its members could perform the work at a lower cost than alternative indicated no interest in allowing FAT&LC members to perform the work.

9. As President of FAT&LC I have been informed by both salaried and employees of potentially serious health and safety violations. As I sta my deposition, in the past half year or so, these include:

a) I have been told that subcontractors are issuing their own radio permits (RWPs without required approval by radtechnicians.

b) I have been told that subcontractors have been directed not to s there is immediate threat to life or bodily injury. For example, in the silo during a period where outside temperature was in the 90 degree rang

OU3 Decision Summary (Final)

Comment S (Cont.)

heavy suits were not permitted to get out of the suits to take rest brea standard practice.

c) I have learned that the Company (FRMCO), in a departure from lon practice, ceased informing workers of bomb threats. (I learned of this contacted us for comments on a threat, which we had not been given notic

10. During the Plant 1 silo incident FAT&LC membeers complained tha subcontractor (Martech) wanted FAT&LC members to remain in their suits, subcontractor employees were doing so. FAT&LC sought to discuss procedu labor management meeting with FERMC0. I chaired this meeting for labor, Weatherred of FERMC0 chaired the meeting for management. At the meeting Weatherred said that FAT&LC member were taking too long breaks. He told was getting tired of grievances, and told us if we continued to file gri be there to do the work--it would be subcontracted. This statement is r minutes of the meeting.

11. In response to FAT&LC's expression of amazement that the bomb-n policy had been altered, FERMC0 promised, during the summer, that it wou with a new procedure. It has not yet done so.

FURTHER AFFIANT SYETH NOT.

Robert Schwab

Subscribed and sworn to before me
this 20 day of November 1993

Notary Public

My commission expires:

VICTORIA L. POWER
NOTARY Public, State of Ohio
by Commission expires March 21, 1995

OU3 Decision Summary (Final)

Comment S (Cont.)

Attachment 4

ADMINISTRATION DIVISION
INDUSTRIAL REALTIONS DEPARTMENT

WEEKLY SIGNIFICANT ITEMS
WEEK ENDING July 21, 1993

SIGNIFICANT ITEMS

The Fernald Atomic Trades and Labor Council (FATLC) alleges that FER not abiding by a 1991 arbitration decision. The decision states who is a rental truck used by groundwater sampling. IR maintains that the ru

Joint Labor-Management Committee met on July 15 to discuss various i Plant 1 silo. Plant 7 project, Smoking Policy, CRU3 Sampling. Appl Remediation Training, Work Time (start/quit, breaks, lunch), chemica operating "standup" fork lifts, chemical unit employees performing r welder qualifications. Representatives from Construction were also FERMCO management conveyed their concerns over the perception of the Trades and Labor Council's (FATLC) past and present performance and management's concern that any future work for the FATLC will depend perform without grievances, without abuse of non-productive time, an

Met with Security to discuss the computerization of the procedure us represented workforce. Currently, when a represented employee repor Communications Center who log the call as well as complete a form in distributed to interested parties. The computerization of this proc and cut down the communication time of the employee's absence. This savings, which is being calculated, for both Security and Industrial

OTHER IMPORTANT ISSUES

Coordinated a tour for senior executives of Indianapolis based Huber

Construction, a leading construction firm in the United States. The on upcoming packages at the FEMP. IR met with these representative regarding various aspects of the ERM mission.

Conducted a transition meeting with employees of Rust Construction a contractor, Wise. IR is making every effort to assist both Wise dur in order to insure minimum disruption. IR has arranged a meeting be and the Greater Cincinnati Building and Construction Trades Council a smooth transition of the Union work force to the new Labor Broker.

ITEMS AWAITING DOE RESPONSE

ITEMS DOE HAS RESPONDED ON

OU3 Decision Summary (Final)

Comment S (Cont.)

Attachment 5

FERMCO

Restoration Management Corporation P.O. Box 398704 Cincinnati, Ohio 4523

August 23, 1993

U. S. Department of Energy
Fernald Environmental Management Project
Letter No. C:OP:93-1242

Mr. Raymond J. Hansen, Acting Manager
DOE Field Office, Fernald
P. O. Box 398705
Cincinnati, Ohio 45239-8705

Dear Mr. Hansen:

CONTRACT DE-AC05-92OR21972, COST SAVINGS SUGGESTIONS

Reference: DOE-2750-93 (17AUG93)

Attached in accordance with the referenced request are 20 co suggestions. These are provided for your use in responding Secretary Grumbly's Task Force on Cost Reductions. A copy o file has been forwarded to Harley Youngmeyer by EMAIL in acc Headquarters request.

Sincerely,

N. C. Kaufman
President

NCK:ccl
Attachment

c: Robert Mendelsohn, DOE Contract Specialist

J. A. Rasile
J. W. Thiesing
C. C. Little
S. C. Cossel
N. P. Reeves
File Record Storage Copy 102.1

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)
OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS INITIATIVE:

Un-layer support services subcontracts, which will provide for direct work.

ANTICIPATED COST SAVINGS:

\$5-15 million per year

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Eliminates duplication of work and multiplication of overhead.

Allows FERMC0 to take direct control of work being done, minimizing management.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Evaluate all subcontracts, developing the "hierarchy" with respect to

Evaluate efficacy of self-perform or consolidation of existing subcontracts

Renegotiate or close existing subcontracts and issue new ones only when

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

Insufficient specific capability in-house.

Insufficient control of new subcontracts.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)
OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS INITIATIVE:

Eliminate redundancies in DOE Order 4700.1 and EPA requirements, inc
of 4700.1/CERCLA/RCRA/NEPA

ANTICIPATED COST SAVINGS:

Over \$5M/year for five years of Conceptual Design Reports alone
Others in the progress of being developed.

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Based on just one CERCLA/RCRA Unit, (CRU1), savings to eliminating t
planning in \$3.5M.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Evaluate all programs for duplications (e.g., CDR reports and RI/FS)
Develop recommendations based on purpose of redundant activities
Obtain approval for changes

NOTE: The results of this effort can be applied to DOE nationwide.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

Determining who has authority in DOE to approve changes.
Obtaining DOE Approval

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)
OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS:

Reduction in sampling and analytical costs associated with operation
wastewater treatment system.

ANTICIPATED COST SAVINGS:

\$21 Million

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Cost of each sampling and analytical activity, and the number of sam
eliminated

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

US EPA and Ohio EPA Approval (obtained)

Determining those activities that can be eliminated

Revising procedures

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

None identified.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS:

Micropurging as a new ground water sampling technique. Under certai
technique can collect samples much more economically than previous m

ANTICIPATED COST SAVINGS:

\$300,000 per year

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Cost saving from trial existing wells outfitted with Micropurging eq

NOTE: This technique can be applied nationwide to DOE

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Evaluate conditions at each well to determine where the technique is

Initiate technique

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

None identified

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)
OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS:

Using standard analytical methods in the Sitewide CERCLA Quality Ass (SCQ).

ANTICIPATED COST SAVINGS:

\$7 Million per year

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Cost of non-standard methods compared to standard methods
Number of analyses
Elimination of one round of competitive bidding using standard metho

NOTE: this is the first instance where the US EPA has sanctioned pe methods for CERCLA work. These radiochemical standards have set pre be adopted DOE-wide.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

DOE Approval (Obtained)
Put into contracts (partially complete)

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

None identified.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)
OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS:

Eliminate unnecessary analyses, based on a reevaluation of monitorin surface water at the Great Miami River and Paddy's Run, water at man general sump.

ANTICIPATED COST SAVINGS:

\$35,000 per year

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Eliminate 3,600 analyses
Using laboratory resources more efficiently
Reduced waste

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Complete analysis
Obtain approval
Revise sampling plans

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS

None identified.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS:

Redevelop Site Access and Compliance Training Program at FEMP. Training accomplished in half the time and feature performance-based examination effective than the old method of open book/open note testing.

ANTICIPATED COST SAVINGS:

Approximately 1,000 workers per year equates to an average of about year.

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

\$2000 per general site worker, \$2,640 per limited site worker, and \$ administrative workers.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Revise training
Implement new training program.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

None identified.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS:

Use wastewater exclusion to reclassify three water treatment surface
Hazardous Waste Management Units (HWMU) to Solid Waste Management Un

ANTICIPATED COST SAVINGS:

Under evaluation

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Cost associated with HWMUs versus costs of SWMUs.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Complete sampling and analyses
Answer unresolved characterization issues.
Obtain reclassification concurrence from EPA.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

Negative answer to unresolved characterization issues. EPA may not
process.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS:

Decrease the number of inspections for drummed low-level waste that
RCRA hazardous waste.

ANTICIPATED COST SAVINGS:

Approximately \$21,000 Annually

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Reduction in inspections from daily to bi-weekly
Cost for inspection personnel

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Identify with certainty the non-RCRA hazardous waste drums
Revise procedures.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

None identified.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)
OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS:

Establish an audit management program to manage audits from the plan the closure, including coordinated scheduling of DOE-HQ audit visits consolidations, improved protocols, and coordination with other audi

ANTICIPATED COST SAVINGS:

Under evaluation

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Probably the best area of opportunity for oversight functions, since agreement between auditing organizations to try to improve audit man

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Complete prototype program (in progress)
Obtain DOE approval
Implement program

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

Decide who can/will approve recommendations for prototype. Obtainin DOE-HQ organizations (turf battles).

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)
OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS INITIATIVE:

The proposed cost savings is to reduce lease costs and facility oper enhancing productivity by consolidating the majority of FERMCO's wor off site office facility to be constructed using capital from a non-back for the life of the project. The proposed facility would be co

requirements by a developer who will lease back to FERMCO for a 10 y which he will recoup his investment.

ANTICIPATED COST SAVINGS:

\$1,000,000 over the life of the project.

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

A detailed engineering analyses has been conducted evaluating facili proposed off site facility as well as the costs for maintaining and facilities including necessary upgrades for long term use. An inqui assembled and developers were solicited for interest. Based on resp cycle costs (excluding cost benefit of improved productivity), the p appear to be viable. Cost to upgrade and maintain 30-40 year facili demolition greatly exceed the costs of constructing and leasing newe of Fernald.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

DOE real estate function must be willing to give the developer certa construction of the facility which will make it commercially attract FERMCO no longer require use of the offices. Additionally DOE and F willing to sign a long term lease which provides the developer secur a reasonable return for use of the developers capital.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

Current government regulations are overly restrictive for long term facilities. Developers have no incentive to construct DOE facilitie leases and which are not commercially viable for future users. DOE' needs to be more liberal in interpreting current regulations governi transactions and funding, or seek changes in the law.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS INITIATIVE:

The proposed cost savings is to immediately and fully depreciate all parts, equipment and machinery, feedstock and remaining product/by p disposal through excess, surplus and outright sales procedures.

ANTICIPATED COST SAVINGS:

\$1,000,000

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Declearing all material as excess or scrap with no value allows rela tracking inventory costs and costs for plant upgrades necessary to k

operational or at a minimum, protected from further degradation under holds us accountable for loss in value of current assets. In a plan demolition and disposal, it makes little sense to expend these costs the ultimate disposal costs. This approach also provides the potent management and recycle contractors to reduce their cost for disposal equipment if there is a possibility of decontamination and subsequent providing the possibility the contractor can profit if he can cost effectively Adequate surveillance of all contaminated and hazardous property would

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Systems to allow market based pricing of assets at sites scheduled for developed.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

Current property management systems are somewhat cumbersome in dealing disposal of contaminated sites. Waivers for NPL sites would help expedite process.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS INITIATIVE:

Eliminate the annual requirement for preparation of the Energy Management

ANTICIPATED COST SAVINGS:

\$50 to 100 thousand annually

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Preparation of an energy management plan is a carryover from a period of limited spinning reserves at many utilities coupled with national conservation of electric and gas reserves was essential to the future survival of energy economy. Concern that oil and gas reserves will disappear has at the same time that energy use at many of the DOE's facilities has as processes are shut down with no intent to restart operations. Preparation which will have little or no impact on the costs of operating a fast no real benefit while requiring valuable human and financial resources which worry about power use by computers and light bulbs at a time when steam plants are being operated to maintain obsolete facilities. To prepare the annual plan and monitor its implementation would no longer need for the plan is eliminated - it is the cost of this labor and resources will be saved.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

The DOE Order for this requirement should be eliminated or clarified primarily involved in site remediation and shut down. FERMCO needs

exemption for FEMP and obtain DOE approval to eliminate the plan and

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

Although energy use is a fraction of what it was when all facilities is politically expedient to appear to be concerned with energy usage theme with environmentalists who believe conservation is the solution. This societal perspective makes it difficult for DOE to focus on the for this money - that of cleaning up the spreading contamination before our soils and water supplies. DOE must move beyond the less relevance associated with the issue of energy use to the greater issue of mixed and our stated intent to clean it up as soon as possible.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS INITIATIVE:

Relax restrictions on disposal of DOE generated wastes at commercial as Envirocare in Utah. This would allow immediate disposition of material is no current DOE site for disposal of mixed and other special waste increases in disposal of existing low level wastes beyond the limits going to the NTS.

It would also allow for the efficient handling, transportation, and cubic yards of LLW resulting from remediation of DOE sites like Fernald.

Commercial disposal costs are competitive with the REAL cost of disposal when all costs of disposal are considered as opposed to the artificial NTS to DOE generators.

ANTICIPATED COST SAVINGS:

Tens of millions depending upon relief granted and liability protection such as Fernald/FERMC. Additional hundreds of millions for Fernald savings for remediation waste disposal.

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Significant costs are incurred daily for inspection and storage of materials not suitable for NTS. Delays in shipping these wastes result in degradation of drums resulting in increased surveillance, overpacks increased potential for leaks into the environment.

Disposal of future remediation wastes at licensed commercial facilities savings in transportation and materials handling costs.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

DOE should immediately act to indemnify FERMC and other site operators shipments to commercial disposal facilities willing to accept DOE waste.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

State politics, concerned environmentalists and others will immediately close the existing commercial facilities and otherwise commercial sites for the same reasons they have tried to block shipm facilities such as NTS and INEL. Commercial rates could increase ex does not retain its ability to dispose at its own sites. Without in operators and FERMCO may continue to use government facilities becau risks of down stream liability for consequential damages in the even

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS INITIATIVE:

Reduce cycle time (e.g., montly to quarterly) for testing of dosimet consistent with risk in various facilities. Reduce urinalyses and o consistent with worker risk. Reduce reporting requirements of worke risk factors.

ANTICIPATED COST SAVINGS:

\$25-50 thousand per year for all tests at Fernald.

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Costs of these programs are well documented and easily managed by co performance of unnecessary tests. Not only are the tests themselves of record keeping, protection of employee privacy and notification a cycle times are extended.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Relax interpretation of regulatory guidelines and, if appropriate, r the FERMCO Rad Manual based on reduced risk factor of a non-operatin approval of proposed reductions may be necessary in some cases. FER evaluate the cost and risk factors of the alternatives, develop a pr their approval and revise the procedures prior to implementation.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

The appearance of indifference to worker exposures and public percep Need for regulatory acceptance of cycle time based on risk.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)
OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS INITIATIVE:

Encourage craft work force to obtain required FERMCO site training a prerequisite training prior to their being considered for future emp
In this approach, FERMCO does not incur labor costs of new-hire craf
are being trained.

ANTICIPATED COST SAVINGS:

\$1.5-2.0 Million per year

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

By considering only workers from the bargaining units which are pre-
avoids the 1-2 weeks of lost productivity experienced under previous
a new craft worker came on site. This can include OSHA, GET, respir
II training which would require in excess of 40 hours of training.

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

This program has been implemented at the FEMP and will result in the
listed. Actual savings will depend on the turnover of craft workers
workers to replace those which depart.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

This can become an issue at any time during contract negotiations wh
progress.

OU3 Decision Summary (Final)

Comment S (Cont.)

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP)
OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
COST SAVINGS INITIATIVE

PROPOSED COST SAVINGS INITIATIVE:

Require all workers (or alternatively just subcontractors) to provid
equipment (shoes only) and sweat garments and undergarments for wear
coveralls. At the present time these items are provided for all emp

ANTICIPATED COST SAVINGS:

For subcontractors alone the cost savings associated with this propo
approximately \$500,000.

JUSTIFICATION FOR ANTICIPATED COST SAVINGS:

Although it is common practice to provide this equipment on many gov not necessarily common practice on private sector construction proje subcontractors are almost always required to provide all of their ow personal clothing, FERMCO would save original clothing costs, replac costs and losses due to theft and abuse of company owned boots and c

STEPS NECESSARY TO ACHIEVE ANTICIPATED COST SAVINGS:

Changes to union agreements may be required but otherwise this is a change in management by FERMCO and could be implemented immediately. FERMCO will no longer issue safety shoes, glasses or hard hats to su Undergarments may also be discontinued this fall.

POSSIBLE HINDRANCES TO ACHIEVING ANTICIPATED COST SAVINGS:

This could create a problem with the unions and could be perceived b decreased emphasis on safety resulting in morale problems and a wors outstanding safety record. Only portions of this proposal could be without violating OSHA 29 CFR 1910. Additionally, the risk of needi employees clothes which become contaminated may increase under this

OU3 Decision Summary (Final)

Comment T

1 safe and they will be productive, and they are
2 trained. It's a misconception that they are not
3 trained or they're not aware of the dangers of
4 radiation or construction activities.
5 We have also attempted to resolve
6 these issues in separate fashion whenever requested
7 by the Department of Energy, by the FERMCO Company,
8 or any third-party politicians. We'll continue to
9 be cooperative. We intend to protect our
10 traditional work, which is construction activities,
11 and we have no intent of performing duties that
12 rightfully belong to FATLC. Thank you.
13 MR. MORGAN: Thank you. Virginia
14 Least.
15 Virginia Least.
16 Lisa Crawford.

17 MS. CRAWFORD: I defer my time, I
18 will hand my comments in in written fashion.
19 MR. MORGAN: Thank you. Edwa Yocum.
20 MR. YOCUM: I defer my time and I
21 will hand my comments in in written fashion.
22 MR. MORGAN: Thank you. Are there
23 any others who would like to speak? Vicki.
24 MS. DASTILLUNG: Vicki Dastillung.

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment U, V, W

1 I won't wish to make any formal comments at this
2 time, but I do seem to feel that we do need the
3 30-day extension to the comment period, and I would
4 like to formally request that DOE provide us with a
5 Round Table or workshop on the EIS and NEPA process
6 as it relates to the OU-3 and the RI/FS process and
7 perhaps discuss with the public whether they would
8 need a Round Table or workshop of more detail on
9 the OU proposed plan. I would also like to ask
10 that the US EPA and Ohio EPA be included in those
11 meetings. Thank you.

12 MR. MORGAN: Thank you. Yes, sir.

13 MR. RICHARDSON: My name is Robert
14 Richardson, with Labor's Local Union 265. I didn't
15 sign up to speak, but I want to just for the
16 record, I want to submit a written statement.

17 MR. MORGAN: Thank you. Anyone
18 else?
19 MS. DUNN: I want to ditto what
20 Vicki said, and I will submit written comments.
21 MR. MORGAN: Thank you.
22 MS. CRAWFORD: FRESH dittos what
23 Vicki said.
24 MR. MORGAN: Thank you. Anyone

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

Comment X

<IMGSRC0594269I>

OU3 Decision Summary (Final)

Comment Y

1 else?
2 MR. MILLER: My name is Richard
3 Miller. I would like to know whether there's going
4 to be a public hearing on the finding of no
5 significant impact for the public to be able to
6 comment on that? I would like to know whether the
7 environmental assessment is being performed
8 separate from the environmental impact statement
9 and why, and I would like to know why the finding
10 of no significant impact was not incorporated in
11 the discussion in the environmental assessment. In

12 other words, why you're bifurcating the discussions
13 since they are clearly interrelated. Thank you.

14 MR. MORGAN: Thank you. Anyone
15 else? Going once, going twice, three times. Thank
16 you. If anyone has any questions informally, we
17 will remain here.

18 - - -

19 MEETING CONCLUDED AT 9:50 P.M.

20 - - -

21

22

23

24

Spangler Reporting Services

PHONE (513) 381-3330 FAX (513) 381-3342

OU3 Decision Summary (Final)

APPENDIX C

ADMINISTRATIVE RECORD INDEX

OU3 Decision Summary (Final)

Page left intentionally blank.

OU3 Decision Summary (Final)

APPENDIX C

ADMINISTRATIVE RECORD INDEX

This appendix contains the listing of the documents and letters used to

Unit 3 Record of Decision for Interim Remedial Action. This listing rep
Administrative Record used in developing the selected remedy for OU3 int
action. The documents detailed below are listed alphabetically.

1993 ANNUAL PROCEDURE UPDATES FOR REMOVAL ACTION NUMBERS 9, 12, AND 26

Index #: R-022-204.1, R-020-204.12, R-030-204.4

Document Date: 06/29/93

From: DOE-FN

To: EPA

of Pages: 2

1993 ANNUAL UPDATE OF PROCEDURAL DOCUMENTATION SUPPORTING FERNALD
ENVIRONMENTAL MANAGEMENT PROJECT ASBESTOS REMOVALS (ASBESTOS PROGRAM)
JUNE 1993

Index #: R-030-204.5

Document Date: 06/29/93

From: DOE-FN

To: EPA

of Pages: 300

ADDENDUM TO FMPC-2082 HISTORY OF FMPC RADIONUCLIDE DISCHARGES MARCH
1989

Index #: G-000-101.7

Document Date: 03/31/89

From: WMCO

To: DOE

of Pages: 22

ADDENDUM TO THE IMPROVED STORAGE OF SOIL & DEBRIS REMOVAL ACTION (RA) 17
WORK PLAN, REV. NO. 2

Index #: R-028-204.6

Document Date: 04/21/93

From: DOE-FN

To: EPA

of Pages: 20

ANNUAL ENVIRONMENTAL REPORT FOR CALENDAR YEAR 1991

Index #: G-000-106.55

Document Date: 1991

From: WEMCO

To: DOE-FN

of Pages: 250

OU3 Decision Summary (Final)

ANNUAL WORK PROCEDURES UPDATE FERNALD ENVIRONMENTAL MANAGEMENT
PROJECT SAFE SHUTDOWN REMOVAL ACTION NUMBER 12 JUNE, 1992

Index #: R-022-202.4

Document Date: 06/01/92

From:

To:

of Pages: 200

APPLICATION TO SHIP WASTE TO THE NEVADA TEST SITE

Index #: R-020-104.1

Document Date: 11/01/92

From: WEMCO

To: DOE-FN

of Pages: 70

APPROVAL OF EE/CA FOR REMOVAL ACTION 27

Index #: R-036-207.1

Document Date: 01/14/93

From: USEPA

To: DOE-FN

of Pages: 2

APPROVAL OF FEMP ASBESTOS ABATEMENT REMOVAL ACTION

Index #: R-030-207.3

Document Date: 09/02/92

From: OEPA

To: DOE-FN

of Pages: 1

APPROVAL OF IMPROVED SOIL AND DEBRIS REMOVAL ACTION WORK PLAN (#17)

Index #: R-028-207.5

Document Date: 12/23/92

From: OEPA

To: DOE-FN

of Pages: 1

APPROVAL OF PHASE IV REMOVAL ACTIONS

Index #: G-000-708.57

Document Date: 02/16/93

From: OEPA

To: DOE-FN

of Pages: 1

APPROVAL OF REMOVAL ACTION 9 - REMOVAL OF WASTE INVENTORIES

Index #: R-020-207.4

Document Date: 10/01/92

From: USEPA

To: DOE-FN

of Pages: 1

OU3 Decision Summary (Final)

APPROVAL OF REMOVAL ACTION 12 - SAFE SHUTDOWN PROGRAM

Index #: R-022-207.3

Document Date: 10/01/92

From: USEPA

To: DOE-FN

of Pages: 1

APPROVAL OF REMOVAL ACTION 13-PLANT 1 ORE SILOS WORK PLAN

Index #: R-019-207.4

Document Date: 05/15/92

From: USEPA

To: DOE-FN

of Pages: 1

APPROVAL OF REMOVAL ACTION 15 SCRAP METALS PILE PROJECT PLAN

Index #: R-026-207.3

Document Date: 12/29/92

From: USEPA

To: DOE-FN

of Pages: 1

APPROVAL OF REMOVAL ACTION 17 - IMPROVED STORAGE OF SOIL AND DEBRIS

Index #: R-028-207.3

Document Date: 09/30/92

From: USEPA

To: DOE-FN

of Pages: 1

APPROVAL OF REMOVAL ACTION 24 PILOT PLANT SUMP WORK PLAN

Index #: R-031-207.4

Document Date: 11/19/92

From: USEPA

To: DOE-FN

of Pages: 1

APPROVAL OF REMOVAL ACTION 25: NITRIC ACID TANK CAR WORK PLAN

Index #: R-035-207.5

Document Date: 03/04/93

From: USEPA

To: DOE-FN

of Pages: 1

APPROVAL OF REMOVAL ACTION 26 - REVISED COMPILATION OF EXISTING
DOCUMENTATION SUPPORTING ASBESTOS ABATEMENT

Index #: R-030-207.4

Document Date: 09/25/92

From: USEPA

To: DOE-FN

of Pages: 1

OU3 Decision Summary (Final)

APPROVAL OF REMOVAL ACTION 28 WORK PLAN

Index #: R-032-207.2

Document Date: 08/05/93

From: USEPA

To: DOE-FN

of Pages: 3

APPROVAL OF REVISED OU #3 RI/FS WORK PLAN RTC

Index #: U-005-305.12

Document Date: 04/14/93

From: USEPA

To: DOE-FN

of Pages: 1

APPROVAL OF REVISED REMOVAL ACTION 17 - WORK PLAN AND ADDENDUM

Index #: U-028-207.8

Document Date: 06/10/93

From: USEPA

To: DOE-FN

of Pages: 2

APPROVAL OF REVISED REMOVAL ACTION 19 WORK PLAN

Index #: R-037-207.4

Document Date: 07/29/93

From: USEPA

To: DOE-FN
of Pages: 1

APPROVAL OF THE EE/CA FOR REMOVAL ACTION #17 - MANAGEMENT OF
CONTAMINATED STRUCTURES

Index #: R-036-207.2
Document Date: 01/19/93
From: OEPA
To: DOE-FN
of Pages: 2

APPROVAL OF THE FINAL O.U.3 RI/FS WORK PLAN ADDENDUM

Index #: U-005-305.14
Document Date: 06/08/93
From: OEPA
To: DOE-FN
of Pages: 1

APPROVAL OF THE NITRIC ACID TANK CAR REMOVAL ACTION WORK PLAN

Index #: R-035-207.5
Document Date: 05/26/93
From: OEPA
To: DOE-FN
of Pages: 1

OU3 Decision Summary (Final)

APPROVAL OF THE SITE-WIDE CHARACTERIZATION REPORT

Index #: G-000-105.53
Document Date: 05/28/93
From: USEPA
To: DOE-FN
of Pages: 1

APPROVAL PLANT 1 ORE SILO R.A.W.P.

Index #: R-019-207.6
Document Date: 08/10/92
From: OEPA
To: DOE-FN
of Pages: 1

APPROVAL OF WORK PLAN R.A. #14

Index #: R-015-207.6
Document Date: 07/29/92
From: OEPA
To: DOE-FN
of Pages: 1

ASBESTOS SURVEY & ASSESSMENT FOR THE FERNALD ENVIRONMENTAL MANAGEMENT
PROJECT

Index #: R-030-101.1
Document Date: 02/28/92
From: DIAGNOSTIC ENGINEERING
To: WEMCO
of Pages: 500

ASSESSMENT OF RADIATION DOSE AND CANCER RISK FOR EMISSIONS FROM 1951
THROUGH 1984

Index #: G-000-101.23
Document Date: 08/01/89
From:
To:
of Pages: 350

BIOLOGICAL AND ECOLOGICAL SITE CHARACTERIZATION OF THE FEED MATERIALS
PRODUCTION CENTER JANUARY 1990
Index #: G-000-105.16
Document Date: 01/02/90
From: MIAMI UNIVERSITY
To: DOE-FMPC
of Pages: 543

OU3 Decision Summary (Final)

BIOLOGICAL SAMPLING ANALYSIS AND RESOURCES REPORT MARCH 1990
Index #: G-000-302.5
Document Date: 03/01/90
From:
To:
of Pages: 150

CATEGORICAL EXCLUSION DETERMINATION ASBESTOS ABATEMENT FOR CALENDAR
YEARS 1992 AND 1993 NEPA DOC. NO. 362
Index #: R-030-108.1
Document Date: 11/12/91
From: DOE-FN
To: DOE-HQ
of Pages: 4

CATEGORICAL EXCLUSION (CX) DETERMINATION PLANT 1 ORE SILOS REMOVAL ACTION
NEPA DOC. NO. 363
Index #: R-019-108.1
Document Date: 01/22/92
From: DOE-FN
To: DOE-HQ
of Pages: 5

CATEGORICAL EXCLUSION DETERMINATION PLANT 2/3 URANYLNITRATEHEXAHYDRATE
REMOVAL ACTION NEPA DOC NO. 358
Index #: U-005-108.1
Document Date: 01/15/92
From: DOE-FN
To: DOE-HQ
of Pages: 4

CATEGORICAL EXCLUSION DETERMINATION-PLANT 7 DISMANTLING, REMOVAL ACTION
NO. 19, NEPA DOC. NO. 421
Index #: R-037-108.1
Document Date: 08/23/93
From: DOE-FN
To: DOE-HQ
of Pages: 5

CATEGORICAL EXCLUSION DETERMINATION - REMOVAL ACTION NO. 25 - NITRIC ACID
TANK CAR AND AREA NEPA DOC. NO. 403
Index #: R-035-108

Document Date: 07/19/93
From: DOE-FN
To: DOE-HQ
of Pages: 6

OU3 Decision Summary (Final)

CATEGORICAL EXCLUSION DETERMINATION - REMOVAL ACTION NO. 28 - FIRE TRAIN
FACILITY, NEPA DOC. NO. 397
Index #: R-032-108.1
Document Date: 07/22/93
From: DOE-FN
To: DOE-HQ
of Pages: 5

CATEGORICAL EXCLUSION DETERMINATION SAFE SHUTDOWN ACTIVITIES, CY 1993
NEPA DOCUMENT NO. 427
Index #: R-022-108.1
Document Date: 05/10/93
From: DOE-FN
To: DOE-HQ
of Pages: 5

COMMUNITY RELATIONS PLAN VOLUME III OF THE REMEDIAL
INVESTIGATION/FEASIBILITY STUDY WORK PLAN AUGUST 1992
Index #: G-000-1002.11
Document Date: 08/01/92
From: DOE-FN
To: WEMCO
of Pages: 250

CONDITIONAL APPROVAL OF THE ADDENDUM TO THE SOIL AND DEBRIS REMOVAL
ACTION 17 WORK PLAN
Index #: R-028-207.7
Document Date: 05/25/93
From: OEPA
To: DOE-FN
of Pages: 2

COMMUNITY AGREEMENT UNDER CERCLA SECTION 120 AND 106(a)
Index #: G-000-710.1
Document Date: 04/09/90
From: USEPA
To: DOE-FMPC
of Pages: 66

CONSENT AGREEMENT AS AMENDED UNDER CERCLA SECTIONS 120 AND 106(a)
SEPTEMBER 1991
Index #: G-000-710.14
Document Date: 09/01/91
From:
To:
of Pages: 98

OU3 Decision Summary (Final)

CONSENT DECREE

Index #: G-000-704.1
Document Date: 12/02/88
From: STATE OF OHIO
To: DOE-FMPC
of Pages: 31

CONTAMINATED SOILS ADJACENT TO THE SEWAGE TREATMENT PLANT INCINERATOR
REMOVAL ACTION 14 WORK PLAN ADDENDUM REVISION 2 JULY 1993

Index #: R-015-204.10
Document Date: 07/93
From: DOE-FN
To: EPA
of Pages: 75

CONTAMINATION AT THE FIRE TRAINING FACILITY REMOVAL ACTION WORK PLAN AND
CLOSURE PLAN INFORMATION AND DATA PACKAGE DRAFT JUNE 1993

Index #: R-032-204.2
Document Date: 06/29/93
From: DOE-FN
To: EPA
of Pages: 350

DECONTAMINATION AND DISMANTLEMENT OF BUILDINGS AND STRUCTURES AT
FERNALD FACT SHEET FOR THE PROPOSED PLAN/ENVIRONMENTAL ASSESSMENT FOR
INTERIM REMEDIAL ACTION DECEMBER 1993

Index #: U-005-1006.3
Document Date: 12/93
From: DOE
To: PUBLIC
of Pages: 12

DOCUMENTATION SUPPORTING FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
ASBESTOS ABATEMENT REMOVAL ACTION REMOVAL ACTION NO. 26 ASBESTOS
PROGRAM PROCEDURES

Index #: R-030-204.1
Document Date: 05/19/92
From: DOE-FN
To: EPA
of Pages: 500

DOCUMENTATION SUPPORTING FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
REMOVAL OF WASTE INVENTORIES LOW LEVEL RADIOACTIVE WASTE AND THORIUM
MANAGEMENT

Index #: R-020-204.8
Document Date: 06/01/92
From: DOE-FN
To: EPA
of Pages: 700

OU3 Decision Summary (Final)

DOCUMENTATION SUPPORTING FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
REMOVAL OF WASTE INVENTORIES LOW LEVEL RADIOACTIVE WASTE AND THORIUM
MANAGEMENT

Index #: R-020-204.13
Document Date: 06/29/93

From: DOE-FN
To: EPA
of Pages: 550

DOCUMENTATION SUPPORTING FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
REMOVAL OF WASTE INVENTORIES REMOVAL ACTION NO. 9

Index #: R-020-202.4

Document Date:

From: DOE-FO

To: USEPA

of Pages: 500

DOCUMENTATION SUPPORTING FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
REMOVAL OF WASTE INVENTORIES THORIUM MANAGEMENT PROCEDURES "TO BE
OVERPACKED"

Index #: R-020-204.6

Document Date:

From:

To:

of Pages: 20

DOCUMENTATION SUPPORTING FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
REMOVAL OF WASTE INVENTORIES THORIUM MANAGEMENT PROCEDURES "TO BE
OVERPACKED" REMOVAL ACTION

Index #: R-020-204.1

Document Date: 09/26/91

From: DOE-FN

To: EPA

of Pages: 500

DOCUMENTATION SUPPORTING FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
SAFE SHUTDOWN REMOVAL ACTION NUMBER 12 PART ONE

Index #: R-022-202.2

Document Date: 10/29/91

From: DOE-FSO

To: EPA

of Pages: 399

DOCUMENTATION SUPPORTING FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
SAFE SHUTDOWN REMOVAL ACTION NUMBER 12 PART TWO

Index #: R-022-202.3

Document Date: 10/29/91

From: DOE-FSO

To: EPA

of Pages: 476

OU3 Decision Summary (Final)

DOCUMENTATION SUPPORTING FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
SAFE SHUTDOWN REMOVAL ACTION NUMBER 12 JUNE 1993

Index #: R-022-204.2

Document Date: 06/29/93

From: DOE-FN

To: EPA

of Pages: 650

DOE ENVIRONMENTAL ASSESSMENT OF THE PROPOSED LOW-LEVEL WASTEPROCESSING
AND SHIPMENT SYSTEM

Index #: G-000-107.6
Document Date: 05/01/85
From:
To: DOE-HQ
of Pages: 25

DOSE AND RISK ASSESSMENTS IN SUPPORT OF THE OPERABLE UNIT 3 PROPOSED PLA
FOR INTERIM REMEDIAL ACTION (ENVIRONMENTAL DIMENSIONS INC - EDI)

Index #:
Document Date: 1993
From:
To:
of Pages:

ECOREGIONS OF THE UNITED STATES

Index #: U-006-307.22
Document Date: 1976
From:
To:
of Pages: 1

ENGINEERING EVALUATION/COST ANALYSIS-FOR REMOVAL ACTION NO. 27
MANAGEMENT OF CONTAMINATED STRUCTURES DECEMBER 1992

Index #: R-036-203.2
Document Date: 12/15/92
From: DOE-FN
To: EPA
of Pages: 200

ENGINEERING EVALUATION/COST ANALYSIS-FOR REMOVAL ACTION NO. 27
MANAGEMENT OF CONTAMINATED STRUCTURES VOLUME II - BACKUP DATA

Index #: R-036-203.3
Document Date: 12/15/92
From: DOE-FN
To: EPA
of Pages: 200

OU3 Decision Summary (Final)

ENGINEERING EVALUATION/COST ANALYSIS, K-65 SILOS REMOVAL ACTION

Index #: R-008-203.3
Document Date: 1990
From: BNI
To: DOE
of Pages: 135

EXPEDITED CLEANUP OF THE FORMER PRODUCTION AREA, OR OPERABLE UNIT (OU) 3

Index #: U-005-708.1
Document Date: 12/08/92
From: USEPA
To: DOE-FN
of Pages: 3

FEDERAL REGISTER PART II - ENVIRONMENTAL PROTECTION AGENCY 40 CFR PART
300 NATIONAL PRIORITIES LIST OF UNCONTROLLED HAZARDOUS WASTE SITES; FINA
RULE

Index #: G-000-101.52
Document Date: 11/21/89

From: FED REG
To:
of Pages: 7

FEED MATERIALS PRODUCTION CENTER RI/FS OPERABLE UNIT 3 SCOPE OF WORK
REVISED APRIL 16, 1990
Index #: U-005-101.2
Document Date: 04/16/90
From: ASI
To: DOE-FMPC
of Pages: 7

FINAL REPORT: ELECTROFISHING SURVEY OF THE GREAT MIAMI RIVER
Index #:
Document Date: 1989
From:
To:
of Pages:

FY-94 COST ESTIMATE FOR THE OU3 PROPOSED PLAN/ENVIRONMENTAL ASSESSMENT
DRAFT
Index #:
Document Date:
From: FERMCO
To: DOE-FN
of Pages:

OU3 Decision Summary (Final)

HISTORY OF FMPC RADIONUCLIDE DISCHARGES, FMPC-2082, (TABLES 52 - 87)
Index #: G-000-101.4
Document Date: 1987
From: WMCO
To: DOE-ORO
of Pages: 211

IMPROVED STORAGE OF SOIL AND DEBRIS REMOVAL ACTION 17 WORK PLAN
FEBRUARY 1993 REVISION NO. 2
Index #: R-028-204.7
Document Date: 04/21/93
From: DOE-FN
To: EPA
of Pages: 125

LOW LEVEL RADIOACTIVE WASTE SHIPPING DOCUMENTATION TO NEVADA TEST SITE
REMOVAL OF WASTE INVENTORIES REMOVAL ACTION NUMBER 9 JANUARY 1992 - JUNE
1992 VOLUME 1
Index #: R-020-712.1
Document Date:
From: WEMCO
To:
of Pages: 300

LOW LEVEL RADIOACTIVE WASTE SHIPPING DOCUMENTATION TO NEVADA TEST SITE
REMOVAL OF WASTE INVENTORIES REMOVAL ACTION NUMBER 9 JANUARY 1992 - JUNE
1992 VOLUME 2
Index #: R-020-712.2
Document Date:

From: WEMCO
To:
of Pages: 280

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DETERMINATION - LOW LEVEL WASTE
SHIPMENTS TO NEVADA TEST SITE (NTS) - FEED MATERIALS PRODUCTION CENTER
(FMPC)

Index #: G-000-101.34, G-000-101.35
Document Date: 08/12/87
From: DOE-ORO
To:
of Pages: 1

NEVADA TEST SITE ANNUAL ENVIRONMENTAL REPORT - 1990

Index #:
Document Date: 1992
From:
To:
of Pages:

OU3 Decision Summary (Final)

NEW NPDES PERMIT EVALUATION DECEMBER, 1990

Index #: G-000-104.6
Document Date: 12/01/90
From: WMCO
To: DOE-FSO
of Pages: 75

NITRIC ACID TANK CAR AND AREA REMOVAL ACTION WORK PLAN AND CLOSURE PLAN
INFORMATION AND DATA PACKAGE FINAL MARCH 1993

Index #: R-035-204.6
Document Date: 04/16/93
From: DOE-FN
To: EPA
of Pages: 150

NPDES BEST MANAGEMENT PRACTICES PLAN

Index #: G-000-1106.3
Document Date: 01/25/88
From: WESTON
To: WMCO
of Pages: 144

OPERABLE UNIT 3 PROPOSED PLAN/ENVIRONMENTAL ASSESSMENT FOR INTERIM
REMEDIAL ACTION COMMENT RESPONSE PACKAGE NOVEMBER 1993

Index #: U-005-408.8
Document Date: 11/93
From: DOE-FN
To: EPA
of Pages: 100

OPERABLE UNIT 3 PROPOSED PLAN/ENVIRONMENTAL ASSESSMENT FOR INTERIM
REMEDIAL ACTION DECEMBER 1993 FINAL

Index #: U-005-405.6
Document Date: 12/93
From: DOE-FN
To: EPA

of Pages: 250

OPERABLE UNIT 3 WORK PLAN ADDENDUM VOLUME 1 OF 2 SECTION 1-7 APPENDICES
A-C MAY 1993 REVISION 3 FINAL

Index #: U-005-303.17

Document Date: 05/14/93

From: DOE-FN

To: EPA

of Pages: 300

OU3 Decision Summary (Final)

OPERABLE UNIT 3 WORK PLAN ADDENDUM VOLUME 2 OF 2 APPENDIX D - SAMPLING
AND ANALYSIS PLAN MAY 1993 REVISION 3 FINAL

Index #: U-005-303.18

Document Date: 05/14/93

From: DOE-FN

To: EPA

of Pages: 400

PILOT PLANT SUMP REMOVAL ACTION NO. 24 (ABANDONED SUMP WEST OF PILOT
PLANT) FINAL REPORT DECEMBER 1993

Index #: R-031-209.2

Document Date: 12/93

From: DOE-FN

To: WEMCO

of Pages: 25

PLANT 1 ORE SILOS REMOVAL ACTION NUMBER 13 WORK PLAN JULY 1992

Index #: R-019-204.7

Document Date: 07/01/92

From: DOE-FN

To: EPA

of Pages: 150

PLAN 1 PAD CONTINUING RELEASE REMOVAL ACTION WORK PLAN JUNE 1991

Index #: R-012-204.4

Document Date: 06/01/91

From:

To:

of Pages: 400

PLANT 7 DISMANTLING REMOVAL ACTION 19 WORK PLAN JUNE 1993 REVISION 1

Index #: R-037-204.3

Document Date: 06/29/93

From: DOE-FN

To: EPA

of Pages: 300

PRESENT WORTH ANALYSIS FOR THE OU3 PROPOSED PLAN DRAFT

Index #:

Document Date:

From: FERMCO

To: DOE-FN

of Pages:

OU3 Decision Summary (Final)

REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) RISK ASSESSMENT WORK PL
ADDENDUM

Index #: G-000-303.42
Document Date: 06/19/92
From: DOE-FN
To: EPA
of Pages: 2

REMOVAL #8, OU #3 PLANT 1 PAD WORKPLAN APPROVAL U.S. DOE FERNALD

Index #: R-012-207.7
Document Date: 08/19/91
From: USEPA
To: DOE-FSO
of Pages: 1

REMOVAL ACTION 14 CONTAMINATED SOILS ADJACENT TO THE SEWAGE TREATMENT
PLANT INCINERATOR FINAL WORKPLAN ADDENDUM

Index #: R-015-207.13
Document Date: 08/24/93
From: USEPA
To: DOE-FN
of Pages: 1

REMOVAL ACTION PROJECT PLAN (RAPP) FOR PHASE 1 OF RA#15 PROCESSING AND
DISPOSAL OF AN ESTIMATED 2,210 TONS OF NON-RCRA SCRAP METAL FROM THE
FERNALD ENVIRONMENTAL

Index #: R-026-204.6
Document Date: 11/23/92
From: DOE-FN
To: EPA
of Pages: 150

REPORT ON FISH POPULATION AND ENVIRONMENTAL CONDITIONS IN PADDYS RUN AND
THE GREAT MIAMI RIVER IN THE VICINITY OF THE FERNALD PLANT OF THE A.E.C.
28, 1952

Index #: G-000-101.45
Document Date: 07/28/52
From:
To:
of Pages: 21

REVISED DRAFT REMOVAL ACTION WORK PLAN FOR REMOVAL ACTION 19 - PLANT 7
DISMANTLING

Index #: R-037-204.2
Document Date: 06/29/93
From: DOE-FN
To: EPA
of Pages: 2

OU3 Decision Summary (Final)

REVISED DRAFT REMOVAL ACTION WORK PLAN FOR REMOVAL ACTION 25 - NITRIC AC
TANK CAR AND AREA

Index #: R-035-204.2
Document Date: 01/27/93

From: DOE-FN
To: EPA
of Pages: 2

REVISED OPERABLE UNIT 3 REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PL
ADDENDUM

Index #: U-005-303.16
Document Date: 05/14/93
From: DOE-FN
To: EPA
of Pages: 2

REVISED OU #3 RI/FS WORK PLAN

Index #: U-005-305.15
Document Date: 06/10/93
From: USEPA
To: DOE-FN
of Pages: 4

REVISED OU #3 RI/FS WORK PLAN RESPONSES TO COMMENTS

Index #: U-005-305.16
Document Date: 08/04/93
From: USEPA
To: DOE-FN
of Pages: 1

REVISED REMOVAL ACTION 13 - PLANT 1 ORE SILOS WORK PLAN

Index #: R-019-204.6
Document Date: 07/14/92
From: DOE-FN
To: EPA
of Pages: 2

REVISED REMOVAL ACTION WORK PLAN FOR THE PLANT 1 PAD CONTINUING RELEASE

Index #: R-012-204.3
Document Date: 06/14/91
From: DOE-FSO
To: EPA
of Pages: 2

REVISED SCRAP METAL PILES R.A.W.P.

Index #: R-026-207.4
Document Date: 06/01/92
From: OEPA
To: DOE-FN
of Pages: 2

OU3 Decision Summary (Final)

RISK ASSESSMENT WORK PLAN ADDENDUM JUNE 1992

Index #: G-000-303.43
Document Date: 06/01/92
From: DOE-FN
To: EPA
of Pages: 150

SCRAP METAL PILES REMOVAL ACTION NUMBER 15 WORK PLAN FERNALD SITE OFFICE
FERNALD, OHIO JANUARY 1992

Index #: R-026-204.1
Document Date: 01/01/92
From:
To:
of Pages: 16

SCRAP METAL PILES REMOVAL ACTION W.P.
Index #: R-026-207.1
Document Date: 02/20/92
From: OEPA
To: DOE-FO
of Pages: 1

SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT FOR THE SITEWIDE ECOLOGICAL R
ASSESSMENT AUGUST 1993 DRAFT
Index #: U-007-304.3
Document Date: 08/23/93
From: DOE-FN
To: EPA
of Pages: 223

SITE ENVIRONMENTAL REPORT 1992 FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
Index #: G-000-105.5
Document Date: 08/01/92
From: DOE-FN
To:
of Pages: 250

SITE ENVIRONMENTAL REPORT 1992 FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
Index #: G-000-106.56
Document Date: 06/01/93
From: DOE-FN
To:
of Pages: 258

OU3 Decision Summary (Final)

SITEWIDE CERCLA QUALITY ASSURANCE PROJECT PLAN VOLUME 1 SECTIONS 1
THROUGH 16 SEPTEMBER 22, 1992
Index #: G-000-303.49
Document Date: 09/22/92
From: DOE-FN
To: EPA
of Pages: 250

SITEWIDE CERCLA QUALITY ASSURANCE PROJECT PLAN VOLUME II APPENDICES A
THROUGH K SEPTEMBER 22, 1992
Index #: G-000-303.50
Document Date: 09/22/92
From: DOE-FN
To: EPA
of Pages: 450

SITEWIDE CERCLA QUALITY ASSURANCE PROJECT PLAN VOLUME III ATTACHMENT I -
FEMP LABORATORY ANALYTICAL METHODS MANUAL SEPTEMBER 22, 1992
Index #: G-000-303.51
Document Date: 09/22/92
From: DOE-FN

To: EPA
of Pages: 450

SITOWIDE CERCLA QUALITY ASSURANCE PROJECT PLAN VOLUME IV ATTACHMENT I -
FEMP LABORATORY ANALYTICAL METHODS MANUAL (CONT.) SEPTEMBER 22, 1992
Index #: G-000-303.52
Document Date: 09/22/92
From: DOE-FN
To: EPA
of Pages: 150

SITOWIDE CERCLA QUALITY ASSURANCE PROJECT PLAN VOLUME V ATTACHMENT I -
FEMP LABORATORY ANALYTICAL METHODS MANUAL (CONT.) SEPTEMBER 22, 1992
Index #: G-000-303.53
Document Date: 09/22/92
From: DOE-FN
To: EPA
of Pages: 200

SITE-WIDE CERCLA QUALITY ASSURANCE PROJECT PLAN CHANGE PAGES FOR VOLUMES
I AND II
Index #: G-000-303.63
Document Date: 06/28/93
From: DOE-FN
To: EPA
of Pages: 65

OU3 Decision Summary (Final)

SITE-WIDE CHARACTERIZATION REPORT VOLUME 1 OF 5 PART I MARCH 1993
Index #: G-000-105.43
Document Date: 03/31/93
From: DOE-FN
To: EPA
of Pages: 400

SITE-WIDE CHARACTERIZATION REPORT VOLUME 2 OF 5 PART I (CONT.) MARCH 1993
Index #: G-000-105.44
Document Date: 03/31/93
From: DOE-FN
To: EPA
of Pages: 400

SITE-WIDE CHARACTERIZATION REPORT VOLUME 3 OF 5 PART II, PART III MARCH
1993
Index #: G-000-105.45
Document Date: 03/31/93
From: DOE-FN
To: EPA
of Pages: 600

SITE-WIDE CHARACTERIZATION REPORT VOLUME 4 OF 5 APPENDICES A - M MARCH
1993
Index #: G-000-105.46
Document Date: 03/31/93
From: DOE-FN
To: EPA
of Pages: 600

SITE-WIDE CHARACTERIZATION REPORT VOLUME 5 OF 5 APPENDICES N - U MARCH 1993

Index #: G-000-105.47
Document Date: 03/31/93
From: DOE-FN
To: EPA
of Pages: 700

SITE WIDE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA) QUALITY ASSURANCE PROJECT PLAN (SCQ)

Index #: G-000-306.35
Document Date: 12/09/92
From: DOE-FN
To: EPA
of Pages: 6

OU3 Decision Summary (Final)

SITE-WIDE QUALITY ASSURANCE PROJECT PLAN

Index #: G-000-305.56
Document Date: 02/12/93
From: USEPA
To: DOE-FN
of Pages: 4

SITE-WIDE QUALITY ASSURANCE PROJECT PLAN FINAL APPROVAL

Index #: G-000-303.62
Document Date: 06/08/93
From: USEPA
To: DOE-FN
of Pages: 1

SOIL SURVEY OF BUTLER COUNTY, OHIO

Index #: U-006-307.10
Document Date: 01/01/80
From: USAG
To:
of Pages: 259

SOIL SURVEY OF HAMILTON COUNTY, OHIO

Index #: U-006-307.12
Document Date: 08/01/82
From: USAG
To:
of Pages: 258

STIPULATED AMENDMENT OF CONSENT DECREE ENTERED DECEMBER 2, 1988, AS AMENDED ON JANUARY 22, 1993.

Index #: G-000-704.40
Document Date: 01/20/93
From: U.S. DISTRICT COURT
To: USDOE & OHIO
of Pages: 75

SUBMITTAL OF CHANGE PAGES FOR SITE-WIDE CERCLA QUALITY ASSURANCE PROJECT PLAN

Index #: G-000-303.54

Document Date: 01/29/93
From: DOE-FN
To: EPA
of Pages: 18

OU3 Decision Summary (Final)

THORIUM MANAGEMENT PROCEDURES FOR CONTAINERS "TO BE OVERPACKED"
REMOVAL ACTION NO. 9 AUGUST 1991 (REVISED NOVEMBER 1991)

Index #: R-020-204.5
Document Date: 11/01/91
From:
To:
of Pages: 17

U.S. DOE PUBLIC MEETING ON THE OPERABLE UNIT 3 PROPOSED PLAN JANUARY 5,

Index #: U-005-1004.2
Document Date: 1994
From: DOE-FN
To:
of Pages: 140

U.S. DOE REQUEST FOR EXTENSION FOR OU 2 MILESTONES AND ADDITIONAL WORK I
OU 3

Index #: G-000-710.16
Document Date: 02/05/93
From: USEPA
To: DOE-FN
of Pages: 1

U.S. DOE REQUEST FOR EXTENSION FOR OU 2 MILESTONES AND ADDITIONAL WORK I
OU 3

Index #: G-000-710.17
Document Date: 02/09/93
From: USEPA
To: DOE-FN
of Pages: 5

VOLUME III OF THE WORK PLAN COMMUNITY RELATIONS PLAN REMEDIAL
INVESTIGATION/FEASIBILITY STUDY AND REMOVAL ACTIONS AT THE U.S. DEPARTME
OF ENERGY FERNALD

Index #: G-000-1002.7
Document Date: 01/01/92
From:
To:
of Pages: 69

WETLANDS DELINEATION REPORT OF THE FERNALD ENVIRONMENTAL MANAGEMENT
PROJECT BUTLER AND HAMILTON COUNTIES, OHIO JUNE 1993

Index #: U-007-107.2
Document Date: 07/22/93
From: DOE-FN
To: EPA
of Pages: 154

OU3 Decision Summary (Final)

Page left intentionally blank.